



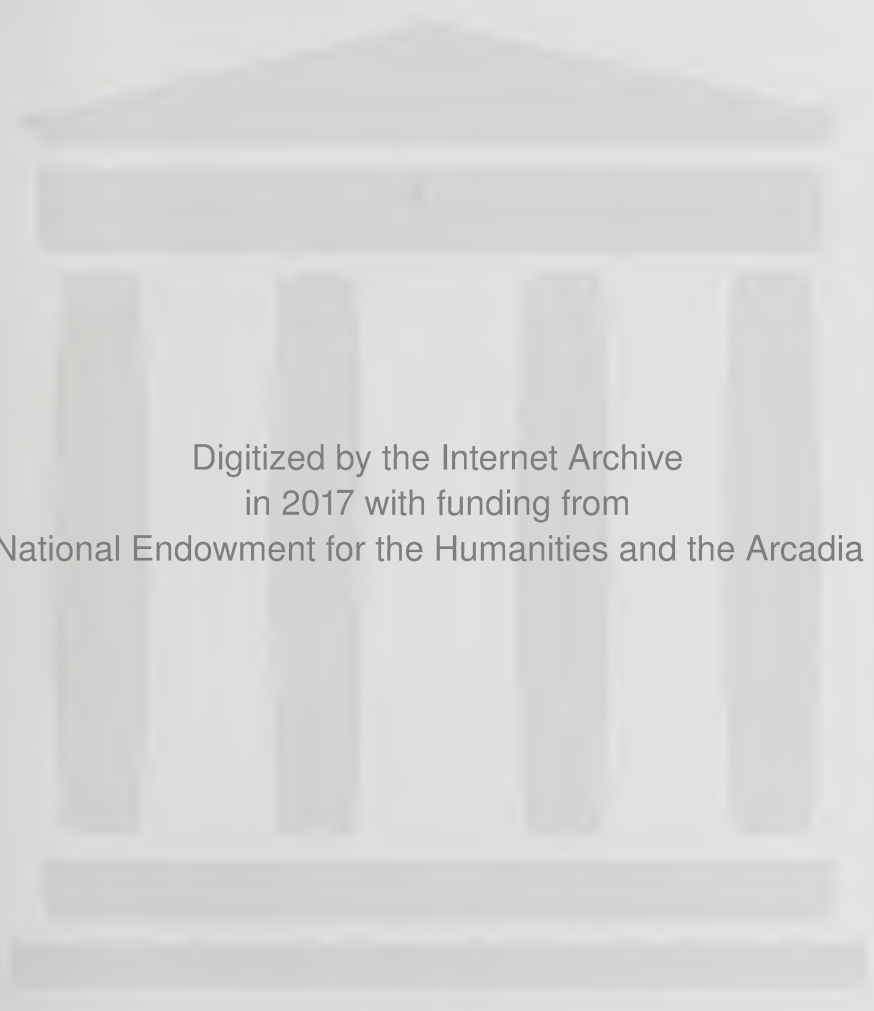


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# The New Mexico Medical Journal

Volume XI

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No. 1

E · D · I · T · O · R · I · A · L

*The New Mexico Medical Journal is not responsible for the opinions expressed by any of its contributors.*

## THE JOURNAL.

The Managing Editor has on various occasions requested reports from the Secretaries of the County Societies, papers read, discussions, news items, etc. To be sure, some have responded, but with too great irregularity and meagerness. The Council believe that the improvement in the Journal is decided, but still there can be no question that with a hearty support and co-operation on the part of the Secretaries and of the profession, it will become a welcome and helpful visitor to us all.

It is the duty, and ought to be the pleasure, of every member of the New Mexico Medical Association, whenever he has anything of interest to report, to send it to the Editor. Interesting case reports, new methods, news items, will be welcome. Every physician has puzzling cases at times. Let him present his case clearly and concisely, and no doubt some brother will be able and glad to give assistance.

Remember it is *your Journal*, and it will grow in usefulness just in proportion to the assistance you render.

E. B. SHAW,  
Chairman of the Council.

## CIRCUMCISION.

That circumcision is done needlessly and far too frequently on young infants can scarcely be denied. It is not possible that the good Lord makes a mistake in every case, as some would have us believe, supplying a redundant prepuce that must be removed. It is well known that the prepuce at birth is more or less adherent to the gland, and in some cases seems unduly long and narrow. No doubt some few cases were better circumcised, but the vast majority can be retracted satisfactorily, and that, too, almost painlessly. It surely is not right nor humane to unduly inflict pain, even on a young infant.

Dr. Kate Wilde, of Los Angeles, advises a treatment to physicians which is rational and for which she claims great success.

The method of dilatation and retraction is as follows: A solution of lysol and glycerine, 1 part of the former and 20 parts of the latter, is dropped by an assistant from a pipette on the parts during the process of retraction. The prepuce is dilated with a hemostat, a grooved director used to break up adhesions, the parts are thinned out like rubber under the influ-



ence of the above solution, and the gland is slipped easily and suddenly.

The above method is worthy of a trial, because the solution is both antiseptic and anesthetic, rendering the operation cleanly and well-nigh painless.

E. B. S.

### THE PRESENT STATUS OF SERUM THERAPY.

If we divide diseases into two grand divisions, those of bacterial origin and those of non-bacterial origin, we have made our first step in determining the usefulness of serum therapy. We are, unfortunately, not always able to determine definitely just where the line of demarcation falls between these classes of diseases and full often we are compelled to transpose the subjects from one column to another. The literature on serum therapy, or bacteria, is voluminous to say the least. Much of the text furnished by the detail suggestions of biological products is of such a nature that one hesitates to take the bait for fear of being caught with, and by, a gold brick, which will assay a trace of truth on the surface only.

The writings of Gabrichewsky, Noguchi, Flexner, von Ruch, Wright, Jenner, Pasteur, Koch, Soberheim, Frankle, Darenberg, Hencourt, Richert, Bering and Metchnikoff would furnish food for thought for a sero-therapeutic specialist, that would occupy his time, during the ordinary waking hours, for quite a period.

Boiled down to a solid extract there

are now being thrust upon the profession, by means of expert detail artists, endogenous and enogenous products, for the cure of all the ills to which human flesh is heir.

How can the laborers in the field of medicine separate the tares from the wheat? How can the seekers after knowledge who would procure an efficient agent for the relief of human suffering separate the gold from the dross? That there are tares among the wheat of serum therapeutic agents is a fact beyond dispute. That there is dross, closely alloyed with the gold of valuable discovery in the biological world, is as sure as fate. Here again we are brought face to face with the necessity of a tribunal that may pass upon the products of enthusiastic scientists as well as designing imposters; for verily there are over enthusiasts, and wonderfully versatile and convincing imposters.

The efficiency of an agent depends upon three factors: adaptability of the agent, the physical surroundings, and the personality of the patient. You cannot gather figs from thistles, nor make silk purses of sows' ears.

The practitioner needs more concise knowledge of these serum therapeutic agents; their history, evolution and efficiency. Such information should come from competent authentic authority unbiased by commercial interests, and then be applied by the judgment of him who has the case in hand.

Apparently today, serum therapy is efficient in diphtheria, rabies, tetanus and meningitis. As a prophalactic, serum therapy is efficient in enteric

fever, gonorrhea, streptococcic goiter, leprosy and tuberculosis.

Doubtful or inefficient in Malta fever, cholera, cancer, hay fever, leukemia, plague and leprosy.

S. D. S.

## LEPROSY IN THE UNITED STATES.

Leprosy exists in many states and in all of our island possessions. The control of the disease is a problem of national importance, in the opinion of Surgeon-General Rupert Blue, of the United States Public Health Service. In a recent issue of *The Journal of the American Medical Association*, Dr. Blue discusses in detail its existence and the possibility of its control. This disease, which has afflicted **mankind** since the beginning of history and which most persons know of only through the Bible, was undoubtedly introduced into the United States from abroad, but the exact time of its first appearance in this country is uncertain. Cases have been imported into the Gulf states through seaports, to the Pacific Coast through Chinese immigration and to the northern central states by Scandinavian immigration. In some of these states the disease was evidently more common many years ago than it is at the present time. In Louisiana, where no record is found of leprosy 140 years ago, the number of leprous beggars in the streets of New Orleans in 1786 was so great that the city authorities had to isolate them in an institution outside of the city. On account of the lack of records of death and disease in many of our states the extent of leprosy in

the United States cannot be accurately estimated. A report made by the United States Marine-Hospital Service some years ago showed 278 cases in the United States. In 1909 reports were obtained of 139 cases in thirteen of the states, 764 in Hawaii, 28 in Porto Rico and 2,330 in the Philippine Islands. In 1912 146 cases were reported in the United States, 696 cases in Hawaii, 28 in Porto Rico and 2,754 in the Philippines, making a total of 3,624 officially reported cases in the United States and its possessions. On account of the loathsome character of the disease, the helplessness of those afflicted with it, and the public dread regarding it, leprosy has been the subject of consideration by the Federal government for many years. In 1889 a regulation was issued forbidding the entry of any vessel to any port of the United States without a certificate from the proper official showing that no case of leprosy was to be found on board. Lepers apprehended and detained were deported to the foreign country from which they came. This regulation is practically in force at the present time. The immigration laws also forbid the landing of lepers, so that there is ample authority for the exclusion from this country of those afflicted with the disease, although on account of its long period of development the possibility of the entry of occasional cases must be recognized. The immigration laws provide that any alien afflicted with leprosy may be deported at any time within three years after his arrival. The Federal government is thus able, by deportation, to relieve the state of the burden of the care of those who may have been over-

looked at the time of their entrance into this country. In 1891 the Surgeon-General of the Public Health Service recommended the establishment of a national leper hospital by the Federal government. The need of such an institution still exists. Federal, state and municipal health authorities have for years urged the establishment of a national leper home. In the meantime the Public Health Service is studying leprosy in the hope of devising methods of prevention and cure, so that this serious problem may be properly solved.

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Fairchild Bros. & Foster, New York, have been awarded a gold medal for Physiological Pharmaceutical Preparations at the exhibit in connection with the International Medical Medicine held in London in August.

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Messrs. Rebman, Publishers, take pleasure in informing the profession that the International Medical Congress, held during the first week in August, 1913, has awarded to them the *gold medal for the best medical publications*.

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## STATE ASSOCIATION.

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Minutes of the Meetings of the Council of the New Mexico Medical Society, held October 2nd, 3rd and 4th, 1913.

The Council was called to order by Chairman E. B. Shaw with Councillors S. D. Swope and S. G. Von Almen and President Peters and Secretary McBride present.

The first matter to be taken up was the application for membership of Doc-

tor H. D. Sewell of Chama, New Mexico. The application being in regular form and the necessary requirements having been met it was moved by Councillor Swope, seconded by Councillor Von Almen, that the application be approved and that it be recommended to the House of Delegates that Doctor Sewell be elected to membership. This motion carried.

The report of the managing editor of the New Mexico Medical Journal was then read and on motion of Councillor Swope, seconded by Councillor Von Almen, and carried, the report of the managing editor was received and the managing editor was commended for the favorable condition of affairs reported, and the Council resolved itself into an auditing committee for the purpose of auditing the books of the managing editor. This committee was to report at a later meeting.

After the auditing committee had completed their work for the time being, the Council then heard the reports of the Councillors of the various districts.

Councillor E. B. Shaw of the first district reported a healthy condition of affairs in his district, together with the formation of a new county society (McKinley County).

Councillor Von Almen of the second district reported that affairs in his district were in a promising condition.

Councillor Swope of the third district reported the promise of the early organization of a District Medical Society. Some eighty members had signified their intention of becoming members, but for local reasons no meeting had as yet been held.



The application of the McKinley County Medical Society for a charter as a component county society of the New Mexico Medical Society was then presented by the Secretary, who stated that all necessary requirements had been met. On motion, duly seconded and carried the application was received and the charter granted.

There being no further business at this time, the Council then adjourned subject to the call of the Chairman.

October 3rd, 9 A. M.

The Council was called to order by Chairman Shaw with all members and the President and Secretary, ex-officio, present.

The report of the auditing committee was then presented and on motion duly seconded and carried, the report was received and accepted. This report is as follows:

Your auditing committee beg to report that they have made a careful audit of the books of the managing editor of the New Mexico Medical Journal and find them correct in every particular. They show that during the year there has been received from all sources the sum of one thousand and twenty-one dollars and eighty-five cents (\$1,021.-85) while the disbursements for the same period have been nine hundred and seventy-three dollars and fifty-six cents (\$973.56) leaving a cash balance in bank of forty-eight dollars and twenty-nine cents. There are also bills receivable to the amount of one hundred and eighty-four dollars and sixteen cents (\$184.16), most of which is collectable and not yet due.

They find that the books are kept in

a neat and orderly manner, and recommend that the report of the managing editor be approved.

E. B. SHAW,  
S. D. SWOPE,  
S. G. VON ALMEN.

On motion of Councillor Von Almen, seconded by Councillor Swope and carried, the report of the auditing committee was received and adopted.

After discussion Councillor Swope offered the following resolution:

Resolved, that the members of the Council recommend that the House of Delegates appoint a committee to establish a badge or button to be worn by the members of the New Mexico Medical Society; that this committee shall agree upon a design and instruct the Secretary of the New Mexico Medical Society to enter into a contract for the purchase of a state button. That a badge or button be designed with some distinctive device to identify the members of the Council, the members of the House of Delegates and others affiliating with the state society and that said badges or buttons shall be sold to the members of the society, to the members of the Council and to the members of the House of Delegates or to the county organizations for the delegates for an amount not to exceed their actual cost.

On motion of Councillor Swope, seconded by Councillor Von Almen the above resolution was carried.

There being no further business before the Council at this time the meeting was adjourned until 5:30 P. M.

October 3rd, 5:30 P. M.

The Council was called to order by Chairman Shaw with all members present.

The books of the Secretary and Treasurer were carefully examined and audited and found correct.

On motion, duly seconded and carried, the Council approved the contents of the annual address of President Peters.

The Council thereupon went into executive session. On adjourning the executive session the Council proceeded to elect a managing editor for the ensuing year. On motion, duly seconded and carried, Doctor R. E. McBride was re-elected managing editor for the ensuing year at a salary of one hundred and fifty dollars (\$150).

There being no further business, the Council adjourned.

E. B. SHAW, Chairman.  
R. E. McBRIDE, Secretary.

Minutes of the meetings of the House of Delegates of the thirty-second annual session of the New Mexico State Medical Society:

October 2nd, 1913, 10 A. M.

The House of Delegates was called to order by President Peters at the appointed hour. The Secretary was instructed to call the roll of delegates by counties as follows:

Bernalillo County: P. G. Cornish, C. A. Frank, J. H. Wroth, E. F. Frisbee, E. Osuna.

Chavez County: W.T. Joyner, J.W. Kinsinger.

Curry County: J. Foster Scott, Jr.

Dona Ana County: T. C. Sexton.

Las Vegas: W. R. Tipton, W. Howe.

Luna County: E. Montenyohl.

Grant County: G. K. Angle, J. O. Walkup.

McKinley County: Wm. Hutchinson.

Quay County: F. W. Noble.

Council: E. B. Shaw, S. D. Swope, S. G. Von Almen

On motion, duly seconded and carried, the Secretary's report as to the credentials of the members of the House of Delegates as above reported, was accepted and the above named members were thereupon accepted as the members of the House of Delegates of the meeting.

On roll call the following answered to their names: Cornish, Frank, Wroth, Frisbee, Osuna, Hutchinson, Tipton, Howe, Walkup, Scott, Swope, Shaw, Von Almen. The following were absent: Angle, Montenyohl, Joyner Kinsinger, Sexton, Noble.

The President then called for the report of the Secretary which was then read as follows:

Gentlemen of the House of Delegates:

Up to the date of this meeting the membership of the New Mexico Medical Society as reported from the various county societies is as follows:

Bernalillo County Medical Society, 45 members.

McKinley County Medical Society, 10 members.

Las Vegas Medical Society, 15 members.

Grant County Medical Society, 21 members.

Santa Fe County Medical Society, 15 members.

Chavez County Medical Society, 17 members.

Quay County Medical Society, 9 members.

Dona Ana County Medical Society, 7 members

Luna County Medical Society, 10 members.

Curry County Medical Society, 8 members.

Colfax County Medical Society, (no report.)

Union County Medical Society, (no report.)

Eddy County Medical Society, (no report.)

Valencia County Medical Society, (no report.)

Total reported to date, 157.

Members not members of County Societies paid to date, 4.

Total to date, 161.

The various county societies are entitled to membership in the House of Delegates as follows:

Bernalillo, 5; Grant, 2; Las Vegas, 2; Santa Fe, 2, Curry, 1; Chavez, 2; Eddy, 1; Quay, 1; Luna, 1; Dona Ana, 1; Valencia, 1; Union, 1; Otero, 1; McKinley, 1.

During the year one new county society has been organized (McKinley county), which society now asks for a charter from this body. The organization has been entirely regular and all the fees and dues have been paid and I therefore recommend favorable action on this application.

During the year President Peters has made the following appointments: To be a member of the Committee of American Medical Association on Public Health and Instruction, Dr. J. W. Colbert of Albuquerque; to be the fraternal delegate to the State Medical

Society of Texas, Dr. S. D. Swope of Deming; to be fraternal delegate to the State Medical Society of Arizona, Doctor H. D. Kaufman of Albuquerque; to be fraternal delegate to the State Medical Society of Colorado, Doctor J. W. Colbert of Albuquerque; to be chairman of the section on Practice, Dr. J. W. Kinsinger of Roswell; to be chairman of the section on Surgery, Dr. J. W. Colbert of Albuquerque; to be chairman of the section on Specialties, Doctor F. E. Tull of Albuquerque.

The Colorado State Medical Society has named Doctor M. J. Keeney of Pueblo, Colorado, as fraternal delegate to this meeting, and the Texas State Medical Society has named Dr. R. B. Homan of El Paso, Texas, and I would suggest that they be given the usual privileges. No response has been received from the invitation to the Secretary of the Arizona State Medical Society.

I beg to call your attention at this time to the fact that the funds have never been turned over to the treasurer elected at the Roswell meeting. At the time of the meeting he was told of the necessity of giving bond and his attention has been called several times to the fact that he has never done so, the last letter on the subject containing a blank form of bond which he has not signed, stating that he would not give a bond inasmuch as the funds, etc., had never been turned over to him. The money that I have collected I have turned over to Doctor F. E. Tull after deducting the authorized expenses as per an itemized statement to appear



hereafter. In this connection I would suggest that steps be taken to have the amount of your treasures's bond required reduced to five hundred dollars and I would further suggest that this bond be obtained from a surety company and paid for out of the general fund of the society.

In October, 1912, your Secretary attended a meeting of State Secretaries in Chicago. This meeting was called by the American Medical Association for the purpose of discussing the question of uniform regulation of membership. Thirty-eight constituent state organizations were represented. As a preliminary to discussion three papers were presented. These were "The History of Membership in the American Medical Association and the State Associations" by Doctor F. R. Green; one on "The Difficulties of the Present Situation" by Doctor A. R. Craig, and one by Doctor Thomas McDavitt on "Remedies Proposed by the Committee." Two days were spent in a discussion of the eight questions presented for consideration. These questions were:

1. Fiscal Year. Should the fiscal year coincide with the calendar year? Should the fiscal year be the same in all county and state societies?

2. Should membership expire automatically at the end of the calendar year, and a new roster for each county and state society be made up with the beginning of each year?

3. When should membership reports from county secretaries to state secretaries be due?

4. Should the dues of new members

joining after the first of the year, be pro rated for the remainder of the year?

5. Should an admission fee be required in addition to the annual dues?

6. Should uniform application blanks, receipt blanks, membership and transfer cards be adopted?

7. Should constituent state associations hold charters from the American Medical Association?

8. Should a uniform plan for the transfer of members be adopted?

At the conclusion of the discussion a committee was appointed to formulate recommendations for the adoption of the conference. The committee reported as follows:

The Committee on Recommendations herewith submits the following report:

1. We recommend that this conference endorse the plan of having the fiscal year coincide with the calendar year in all parts of the organization. We further recommend that secretaries of all state associations which have not already adopted this provision, bring this latter to the attention of their associations and recommend its adoption.

2. We recommend that constituent state associations adopt provisions making dues in county societies payable on January 1 of each year, and requiring county secretaries to report to state secretaries all members in good standing, together with their per capita assessments for the current year not later than March 31. State societies desiring to do so may provide a shorter period.

3. The recommendation covering the

third question under discussion is covered by our recommendation of the second.

4. Regarding the pro-rating of dues, we recommend that this be made optional with local societies.

6. While the committee recognizes, as a general principle, that a uniform system of blanks for county and state societies is desirable as soon as practicable, we recommend further consideration of this question at a later conference.

7. We recommend that the House of delegates of the American Medical Association be asked to consider the advisability of issuing charters to constituent associations.

8. We recognize the desirability of a uniform method of transfer, but this system cannot be established until there has been developed a greater uniformity in other details of organization. We therefore recommend that this question be made the subject of discussion at a future conference.

9. The committee recognizes the value of this conference to the state association secretaries, and to the purposes of this organization. It therefore recommends that future conferences of this character be held.

Signed by the Committee.

The above recommendations were adopted and your secretary asks for action by this body at this meeting. It needs no argument to demonstrate the necessity of uniformity, particularly in the matter of the fiscal year and the matter of the transfer of membership.

The entire report was adopted by the House of Delegates of the American Medical Association at the Minneapolis meeting and another conference is expected to be held early in 1914.

I submit herewith as exhibit "A" a map showing the counties in the various states where committees for Public Health Education have been appointed. Doctor Margaret Cartwright is chairman for the state of New Mexico and these matters should be taken up with her. In this connection I submit as exhibit "B" a letter which your secretary has recently received from the Commissioner of Education of the Department of Education which shows that some interest is being manifested in the matter of public education along the line of teaching people how to care for their health. I regret that I was not able to make a very creditable report.

Exhibit "C" herewith submitted is a letter from Doctor George A. Moleen relative to the time of the next annual meeting of the American Medical Association. In reply to Doctor Moleen your secretary stated that he would bring this matter to the attention of the New Mexico Medical Society and I would therefore request discussion and action.

Your secretary made an unsuccessful effort to have with us at this meeting the Secretary of the American Medical Association as evidenced by the enclosed letter which is submitted as exhibit "D."

The society owns an old model Smith Premier typewriter now in the hands of the secretary. This machine has

outlived its usefulness and with the consent of this society should be traded off for whatever it will bring and the returns turned into the general fund or used as payment toward a new machine.

Your secretary regrets that he is forced to again call attention to the difficulty in getting replies from the county secretaries. This hampers him in his work and makes the records incomplete, and he would urge this body at this meeting to make a resolution of appeal to the county secretaries for a more earnest attention to the duties devolving upon them. The very backbone of the state society are the county secretaries and I therefore respectfully suggest that this House of Delegates recommend the formation of a "County Secretaries' Organization" to meet at the time of the annual meeting.

I would call your attention to the fact that we are hampered in securing members from the state at large in counties where there are no county societies by the fact that we meet once a year only and therefore an application has to wait too long. I would suggest that some plan be devised whereby the secretary could admit to membership all applicants at once where they were found qualified. This could be done by referring the applications to the Council as is now done and on their reporting favorably the applicant could be admitted and the matter ratified by the House of Delegates at their annual session.

There is appended herewith a report of the receipts and disbursements of the state society funds that have come

into the hands of the secretary during the past year, approval of which your secretary asks after examination.

Respectfully submitted,  
R. E. McBRIDE,  
Secretary.

After the reading of the report of the secretary it was ordered, on motion duly seconded and carried, that the report of the secretary be received and accepted, and that the recommendations contained therein be acted upon seriatim.

The House of Delegates thereupon proceeded to act upon the recommendations contained in the report, taking them up in order.

The recommendations emanating from the meeting of state secretaries to the House of Delegates of the A. M. A. were first taken up.

Recommendation one was, on motion duly seconded and carried, approved.

Recommendation two was, on motion duly seconded and carried, approved.

Recommendation three was, on motion duly seconded and carried, approved.

Recommendation four was, on motion duly seconded and carried, approved.

Recommendation five was, on motion duly seconded and carried, approved.

Recommendation six was on motion duly seconded and carried, approved.

Recommendation seven was, on motion duly seconded and carried, approved.



Recommendation eight was, on motion duly seconded and carried, approved.

The action of the secretary at the meeting of the state secretaries held in Chicago, October 22nd and 23rd, 1912, was approved and ratified.

On motion duly seconded and carried, the work of the committee of the American Medical Association on Public Health and Education was commended.

The matter of the time of the meeting of the American Medical Association, as mentioned in a letter from Doctor George A. Moleen of Denver, Colorado, was carefully considered and after discussion it was moved by Delegate Tipton, seconded by Delegate Wroth that the following resolution be adopted:

Resolved, by the House of Delegates of the New Mexico Medical Society, that the House of Delegates of the American Medical Association be requested, in fixing a date for the annual meeting of the American Medical Association, to give due consideration to the membership in the remoter parts of the country and their ability or inability to take advantage of the annual tourist rates offered by the various railroads.

This resolution, on being put on passage, was unanimously carried.

On motion duly seconded and carried, the recommendation to organize a county secretary's society was approved and the secretary instructed to take such steps as may be necessary to perfect this organization.

On motion duly seconded and carried, the president was instructed to

appoint a committee of three to consider the recommendation relative to the membership in counties where no county societies exist. The president appointed on this committee Doctors Tipton, Swope and Von Almen.

The hour for the general meeting having arrived, the House of Delegates recessed until 1:30 P. M.

October 2nd, 1913, 1:30 P. M.

The House of Delegates was called to order by President Peters with a quorum present.

Delegate Kinsinger of the Chavez County Medical Society presented his credentials and was seated.

The report of the Council on the application of Doctor H. D. Sewell was read and on motion duly seconded and carried, Doctor Sewell was made a member of the New Mexico Medical Society.

There being no further business before the House of Delegates at this time, a recess was taken until 8:30 A. M. Friday, October 3rd, 1913.

October 3rd, 1913, 8:30 A. M.

The House of delegates was called to order by President Peters with a quorum present and immediately adjourned until 12:30 P. M.

October 3rd, 12:30 P. M.

The House of Delegates was called to order by President Peters with a quorum present.

Delegate Swope offered the following amendment to the By-laws:

Amend section three (3) of chapter six (VI) of the By-laws as follows:

After the words "sum of" omit

"\$250" and add "\$500. Said bond to be obtained from a surety company licensed to do business in the state and the cost thereof to be paid by the Society."

At this time the Council reported the resolution relative to the official button or badge (See minutes of Council). After much discussion it was moved that the resolution be adopted. This motion was seconded, whereupon Delegate Wroth moved a substitute that the motion be not adopted. This motion was seconded. The House on roll call voted to accept the substitute motion, whereupon the roll was called and the substitute carried by a majority vote.

The committee appointed by the President to look into the matter of membership in counties where no county society exists then made the following report:

"It is the sense of this committee that, for the present, there be no alteration of the constitution or by-laws governing membership. We urgently recommend that all applications from counties having no organization shall make their application through the nearest component society. If, for any reason, such applicant does not care to become a member of such neighboring county medical society, then he must furnish satisfactory evidence of his eligibility to membership in said neighboring society signed by the secretary and president of the neighboring society.

(Signed)

W. R. TIPTON,  
S. D. SWOPE,  
S. G. VON ALMEN.

On motion duly seconded and car-

ried the report was accepted and adopted.

There being no further business before the House of Delegates at this time, a recess was taken until Saturday morning, October 4th, 1913, at 9 A. M.

October 4th, 1913, 9 A. M.

The house was called to order by President Peters with a quorum present. The reading of the minutes was dispensed with. The President announced that the first order of business was the election of officers.

For President Doctor J. H. Wroth nominated Doctor H. B. Kaufman of Albuquerque. There being no further nominations the Secretary was, on motion duly seconded and carried, instructed to cast the unanimous vote for Doctor Kaufman for President. This was done.

For First Vice-President Doctor W. T. Joyner was nominated. There being no further nominations the Secretary was instructed, on motion duly seconded and carried, to cast the unanimous vote for Doctor Joyner for First Vice-President. This was done.

For Second Vice-President Doctor Evelyn Frisbee was nominated. There being no further nominations the Secretary was instructed, on motion duly seconded and carried, to cast the unanimous vote for Doctor Frisbee for Second Vice-President. This was done.

For Third Vice-President Doctor William Howe of East Las Vegas was nominated. There being no further nominations, the Secretary was instructed, on motion duly seconded and carried, to cast the unanimous vote for

Doctor William Howe for Third Vice-President. This was done.

For Secretary Doctor R. E. McBride was nominated. There being no further nominations, the President was, on motion duly seconded and carried, instructed to cast the unanimous vote for Doctor R. E. McBride for Secretary. This was done.

For Treasurer, Doctor F. E. Tull of Albuquerque was nominated. There being no further nominations, the Secretary was instructed, on motion duly seconded and carried, to cast the unanimous ballot for Doctor F. E. Tull as Treasurer. This was done.

At this time Doctor S. D. Swope, delegate to the 1913 meeting of the American Medical Association, asked unanimous consent to make his report as delegate and also his report as fraternal delegate to the Texas State Medical Society.

Unanimous consent was granted and Doctor Swope read his reports.

On motion duly seconded and carried, the report of the delegate to the American Medical Association was accepted and approved and the recommendations contained therein were adopted with the proviso that the financial part thereof be left to the Council.

The President then called for the nominations for delegate to the American Medical Association for the term of two years (1914 and 1915).

Delegate Frisbee nominated Doctor S. D. Swope. Delegate Wroth nominated Doctor W. R. Tipton. There being no further nominations, the House proceeded to ballot. On spreading the ballot it was found that there were nine votes cast, five of these be-

ing for Doctor W. R. Tipton and four for Doctor S. D. Swope. The President thereupon declared Doctor W. R. Tipton elected.

For alternate delegate Doctor S. D. Swope was nominated. There being no further nominations the Secretary was instructed, on motion duly seconded and carried, to cast the unanimous vote for Doctor S. D. Swope for alternate delegate to the American Medical Association for the term of two years. This was done.

The term of Councillor S. D. Swope of the third district having expired the President called for nominations for this position. Doctor Leroy S. Peters of Silver City was nominated. There being no further nominations the Secretary was, on motion duly seconded and carried, instructed to cast the vote for Councillor for three years for Doctor L. S. Peters of Silver City. This was done.

On motion duly seconded and carried, Albuquerque was unanimously chosen as the next meeting place, the time to be determined later.

At this time the Council reported that they approved the address of President Peters and asked that the House of Delegates ratify this action. On motion duly seconded and carried, the House of Delegates ratified the action of the Council in the matter of the President's address.

The Council then reported its findings in auditing the Journal accounts and on motion duly seconded and carried, the House of Delegates adopted this report of the Council.

It was then moved, seconded and carried, that the amendment to section 3 of chapter VI of the by-laws as of-



ffered by Delegate Swope on yesterday be adopted. A vote being taken the amendment was unanimously adopted.

Doctor S. D. Swope was then appointed a committee of one to draw suitable resolutions of thanks to the various bodies who had assisted in entertaining the Society.

Doctor W. R. Tipton offered the following resolution:

Resolved, that the House of Delegates recommend that in future the annual banquet be held on the night of the second day of the annual meeting of the New Mexico Medical Society. On motion duly seconded and carried, this resolution was adopted.

Doctor S. D. Swope then offered the following which on motion duly seconded and carried, was unanimously adopted:

Whereas, the New Mexico Medical Society is indebted to the Bernalillo County Medical Society, the Commercial Club and the City of Albuquerque for a most excellent entertainment at this thirty-second annual meeting of the New Mexico Medical Society and is especially indebted to Doctor J. W. Colbert, chairman of the local committee of entertainment and exalted ruler of the Albuquerque Lodge of Elks, therefore

Be It Resolved, that the thanks of this Society are due and are hereby rendered to the City of Albuquerque, the Bernalillo County Medical Society, the Commercial Club and to the local chairman of the entertainment committee, and to the Albuquerque Lodge of Elks for a most enjoyable time.

S. D. SWOPE, Chairman.

Minutes of the meetings of the General Sessions of the New Mexico State Medical Society:

October 2nd, 1913, 10 A. M.

The meeting was called to order by President L. S. Peters who asked the Reverend C. O. Beckman to deliver the invocation. After the invocation Hon D. K. B. Sellers, Mayor of Albuquerque, delivered the address of welcome on behalf of the city of Albuquerque. Mayor Sellers stated that under ordinary circumstances he would offer the keys of the city to the visiting physicians, but inasmuch as keys sometimes suggested jails he would not do so on this occasion, inasmuch as some twenty-five of the leading physicians of Albuquerque had been recently indicted by the grand jury for violation of the vital statistics law and as he did not want any of them to *break into jail* he thought best to hold the keys himself.

Following Mayor Sellers came Doctor McLandress who delivered an address of welcome on behalf of the Bernalillo County Medical Society. The addresses of welcome were responded to by Doctor J. H. Wroth of Albuquerque. Following the response to the addresses of welcome Doctor Le Roy S. Peters of Silver City, President of the New Mexico State Medical Society, delivered the annual President's address.

At this time the meeting recessed until 2 P. M. October 2nd, 1913.

October 2nd, 1913, 2 P. M.

The meeting was called to order by President Peters who called Doctor J. W. Kinsinger, chairman of the section on Practice, to the chair. Doctor



Kinsinger then delivered his address.

The paper of Doctor M. F. Des Marias was then read. Doctor Des Marias being absent, his paper was read by Doctor E. B. Shaw of East Las Vegas. This paper was discussed by Doctors Carpenter of Leavenworth, Kansas, J. Foster Scott, Jr., LeRoy S. Peters, R. E. McBride, and Doctor Shaw in closing.

Papers numbered two (2) and three (3) were absent.

Doctor William Howe read his paper on "The Conduct of Normal Labor Through Parturition." This paper was discussed by Doctors W. G. Hope, E. B. Shaw, W. R. Tipton, J. F. Lilly, S. D. Swope, J. S. Cipes, W. T. Salmon, J. D. Kinsinger, and Doctor Howe in closing.

Doctor W. G. Hope of Albuquerque was then called upon for his paper and pleaded guilty to omission by default.

Doctor M. K. Wylder of Albuquerque then read his paper entitled "Chronic Constipation." This paper was discussed by Doctors Tipton, Peters, Homan, Hope, Shaw, Jamieson, Prentiss, Cipes.

Doctor Margaret Cartwright of Albuquerque then read a most excellent paper on "Sexual Hygiene." This paper was discussed by Doctors Frisbee, Swope, Wroth, Jamieson, McBride, and Cartwright in closing.

Doctor S. D. Swope then read his paper on the "Thyroid Gland," followed by a most interesting and instructive exhibition of slides.

At this time the meeting was adjourned to allow those desiring to take advantage of the automobile trip to depart.

Friday Morning, October 3rd, 1913,  
10 A. M.

The meeting was called to order by President Peters, who called Doctor J. W. Colbert, chairman of the Surgical Section, to the chair. Doctor Colbert then read his address (to be published later—Ed.) after which Doctor M. J. Keeney, fraternal delegate from the Colorado State Medical Society, then read his paper entitled "Treatment of Duodenal Ulcers." This paper was discussed by Doctors F. W. Noble, W. R. Lovelace, E. C. Prentiss, S. A. Milliken, P. G. Cornish and M. J. Keeney in closing.

Following the paper of Doctor Keeney, Doctor Noble read his paper on "A New Treatment of Cervical Adenitis. Whether due to Tuberculosis or Mixed Infection." This paper was discussed by Doctors Cornish, Giese, Hope, Hendricks and Noble in closing.

Following the paper of Doctor Noble, Doctor L. G. Rice of Albuquerque read a most instructive paper on "Rupture of the Pregnant Uterus Before the Sixth Month." The paper was discussed by Doctors Pearce, Hope, Lackey and Cornish, with Doctor Rice in closing.

Doctor Lovelace then read his paper on "Treatment of Pyosalpinx," which was discussed by Doctor Shaw, Doctor Rice and Doctor Noble, after which the society recessed until 3 P.M.

October 3rd, 1913, 2 P. M.

The society was called together by President Peters. Telegrams were from Doctors A. W. Morton, W. W. Waite, Jas Vance, H. A. Ingalls, and

a letter from Doctor C. M. Yater, all regretting their inability to take part in the program.

Doctor S. A. Milliken then read his paper on "Typhoid," which was discussed by Doctors J. O. Walkup, Hendrix of El Paso, Texas, M. J. Keeney, C. A. Jamieson of El Paso, Texas, and Milliken in closing.

Following Doctor Milliken's paper Doctor E. B. Shaw of East Las Vegas read a most interesting paper on "Suppurative Nephritis" with report of a case. This paper was discussed by Doctors W. T. Brown, J. H. Wroth, Jamieson, Patchin, Walkup, Milliken, Kinsinger, and Shaw in closing.

Following the reading of the paper of Doctor Shaw, Doctor Colbert resigned the chair to Doctor F. E. Tull of Albuquerque, chairman of the committee on Specialties. Doctor Tull took the chair and then read his address entitled "Everyday Eye Injuries."

Following Doctor Tull's address came the reading of a most interesting and instructive paper by Doctor E. H. Irvin of El Paso entitled "Some Unusual Eye Injuries." This paper was most ably presented and as ably discussed by Doctors W. T. Salmon, E. F. Frisbee, E. H. Carpenter, S. D. Swope, E. B. Shaw, and E. H. Irvin in closing.

The paper of Doctor E. H. Carpenter on "Diseases of the External Auditory Diseases," followed next and was most entertainingly discussed by Doctors T. E. Pressley, E. H. Irvin and Carpenter in closing.

Doctor W. T. Salmon followed Doctor Carpenter with a masterly paper on "Otitic Abscesses of the Brain." This

paper was listened to with the greatest of attention and was most ably discussed by Doctors E. H. Irvin, T. E. Pressley, F. W. Noble, E. B. Shaw, S. L. Burton, and Salmon in closing.

The meeting then adjourned until Saturday morning, October 4th, at 10 A. M.

October 4th, 1913, 10 A. M.

The meeting was called to order by President Peters who announced that this day's session would be a joint meeting between the New Mexico Medical Society and the New Mexico Society for the Treatment and Prevention of Tuberculosis. Doctor A. G. Shortle presided over the sessions and the following program was taken up.

President Shortle read his address, "A Further Report on Cases Treated by Artificial Pneumothorax." This paper was discussed by Doctors Peters, Homan, Lilly, Giese, Cipes, Forster, and Shortle in closing.

Doctor Forster then read his paper, "Observations on the Difference in Attitude of the East and West Toward the Tuberculosis Problem." This paper was discussed by Doctors Flynn, Kaufman, Lloyd, Peters, Shortle, and Forster in closing.

At this time the meeting adjourned until 2 P. M.

October 4th, 2 P. M.

The meeting was called to order by President Shortle, who called for Doctor Walkup's paper. Dr. Walkup read his paper, "Tuberculosis and the X-Ray," illustrating it with a number of plates. Discussion was opened by Doctor Forster, followed by Doctors Short-

tle and Peters and Doctor Walkup in closing.

Doctor Charles O. Giese read his paper, "Hodgkin's Disease and its Relationship to Tuberculosis." This paper was discussed by Doctors Walkup and Cipes, and Doctor Giese in closing.

The next paper was one by Doctor John W. Flinn on "The Medical Profession in its Relation to the Tuberculosis Problem." Following Doctor Flinn's paper Doctor Charles M. Hendricks read a paper on "Specifics." The papers of Doctors Flinn and Hendricks were discussed by Doctors Giese, Flinn, Homan, and Forster.

Doctor E. C. Prentiss then read his paper "The Feeding of Tuberculosis Patients," which was discussed by Doctors Shortle, Cipes, Hendricks, and Prentiss in closing.

Doctor F. E. Mera then read his paper, "Some Observations on Altitude," followed by Doctor Peters' paper, "A Further Report on Marked Hemorrhage from the Bowels in Tuberculosis."

These papers were discussed by Doctors Hendricks, Mera, Giese, Shortle, and Peters in closing.

The New Mexico Society for the Study and Prevention of Tuberculosis then went into executive session for the election of officers, after which Dr. L. S. Peters announced that the following officers had been elected:

President, A. G. Shortle, Albuquerque; Vice-President, F. E. Mera, Santa Fe; Secretary, L. S. Peters, Silver City; Treasurer, R. E. McBride, Las Cruces.

The joint meeting then adjourned

and President L. S. Peters of the New Mexico Medical Society then called the New Mexico Medical Society to order for the final session. The secretary then read the report of the transactions of the House of Delegates and Doctor W. T. Brown was appointed a committee of one to escort the President-elect, Doctor H.B.Kaufman, to the chair. Doctor Kaufman was introduced by President Peters who then resigned the gavel to Doctor Kaufman in a few well chosen words. Doctor Kaufman thanked the members for the honor conferred and asked for the united support of the members in making the coming year a success.

There being no further business before the meeting, adjournment sine die was then taken.

R. E. M'BRIDE,

Secretary.

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Report of S. D. Swope, Fraternal Delegate to Texas:

Your Fraternal Delegate to the Texas State Medical Society, begs leave to offer the following report:

In accordance with the wish of our President I met with the Texas State Medical Society May 5, and read a paper before the medical section on "The Present Status of Serum Therapy." I have never had the pleasure of meeting with a more congenial, hospitable, enthusiastic assemblage of medical men than that assembled in San Antonio at the last meeting of the Texas State Society. Your representative was graciously received, pleasantly entertained, and had extended to him every courtesy that the State Society and the profession of San Antonio could offer. He lectured to an intelligent, appreciative



audience in Carnegie Library in the interest of public health and medical legislation, and gave a five minute talk by invitation before the House of Delegates.

Respectfully submitted,  
S. D. SWOPE.

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Report of Delegate to American Medical Association:

Your representative to the meeting of the American Medical Association, which convened at Minneapolis, Minnesota, on June 17, 1913, begs leave to submit the following report:

The meeting at Minneapolis was well attended, representative scientists and physicians from all points in the United States and from many foreign countries were present.

Your representative was early at the desk of the registration committee and secured approval of his credentials without difficulty. Your representative was in constant attendance upon all of the sessions of the House of Delegates and took part in some of the discussions. He was much impressed with the report of the committee on education and scientific progress, especially in a diagrammatic illustration of the rise of the requirements of graduation and the descent of the number of medical educational institutions. This decrease was caused by the weeding out of the less efficient schools, due to the necessity of meeting requirements for which they were not prepared; these two lines on the diagram having approached so near a common point that one is forced to conclude that we are very near a balanced condition in the world of medical education.

Your representative had the pleasure and distinction of very pleasant asso-

ciation with the out-going President, Dr. Abraham Jacoby, and also with the incoming President, Dr. John A. Witherspoon and many other distinguished representatives of the medical profession. He was especially impressed with the graciousness, dignity and activity of Dr. Abraham Jacoby, a grand old man with eighty-five years to his credit and still a leader. A frail body but a colossal mind that stands out like a great lighthouse on a rocky promontory.

Your representative was appointed to no committee, possibly for the reason that he was unknown to the presiding officer, that most of the committees are arranged for previous to the annual meetings and that there was a bountiful supply of better material to fill the demands.

Your representative made no effort to secure any of the minor offices in the Association, having but recently been favored with a vice-presidency we did not think it good taste to ask for further consideration at present and assisted our neighbors, Colorado and Utah, to secure such coveted recognition. We would have especially liked to have secured one of the trustee's places for our state, there being four to elect, but we did not feel justified in working for such an honor when such efforts would possibly influence the success of our friend, the gifted son of our near neighbor Texas, Dr. C. E. Cantrell, who was a candidate for re-election but was defeated by a representative from our sister state, Louisiana.

Your representative concurred in the adoption of the fee-splitting resolution and would recommend that the New Mexico State Society endorse the



action of the A. M. A. in this matter, as we believe that such practices are unfair to the specialist and unfair to the patient. We believe such practices are derogative to the higher standard of the profession in encouraging those not properly equipped by education or experience to receive money for which they give no adequate service.

Your representative was active in placing the name of Dr. W. L. Rodmen, professor of surgery in the Medico-Surgical College of Philadelphia, before the House of Delegates as a candidate for President of the A. M. A. Dr. Rodmen was nominated by the Surgeon-General of the Navy and his nomination seconded by a five minute speech by your delegate, but failed to be elected by four votes.

Your representative was splendidly entertained by the committee of entertainment at Minneapolis.

Your representative, after sitting in the House of Delegates of the American Medical Association is assured of two facts, viz.: That while a delegate is highly honored by being chosen to represent any section of the country in the conventions of the American Medical Association, if he attends to his duties as delegate, it requires all his time and deprives him of an opportunity to take part or receive any of the great benefits from the scientific sessions; and that a delegate going for the first time to the meetings of the American Medical Association is much handicapped by not knowing the active members of the House of Delegates nor being familiar with the usages of that body. Such conditions are over-

come in the more populous states by electing some of the older men who have been through the mill and know the ropes and who can act as guide to the new members, by this means men of known ability may become prominent in the House of Delegates on their first visit.

I discovered that nearly all the delegates to the American Medical Association had their expenses paid by their state societies. I would recommend that our delegate to the American Medical Association be elected for two or three years and that an alternate be elected for the same length of time, with the understanding that this alternate be elected delegate at the expiration of the term of the outgoing delegate, who would not be eligible to re-election, and if possible the expenses of the delegate be paid by the state. This would allow the delegate and his alternate an opportunity to confer and become conversant with the workings of the House of Delegates, would make a more proficient showing and provide at once for the presence of an efficient legislator in the case the regular delegate should be unable to attend the meetings.

It would seem that by electing our Secretary delegate to the American Medical Association a part of the difficulties arising from the above suggestions might be overcome, but I am persuaded that the Secretary who attends the secretaries' meetings at the annual conventions would not have sufficient time at his disposal to attend to the duties in the House, and vice versa.

Respectfully submitted,

SAMUEL D. SVOPE, M.D.

# NEW MEXICO STATE MEDICAL SOCIETY.

## President—

H. B. Kaufman . . . . . Albuquerque

## Vice-Presidents—

W. T. Joyner . . . . . Roswell

E. F. Frisbee . . . . . Albuquerque

William Howe . . . . . East Las Vegas

## Secretary—

R. E. McBride . . . . . Las Cruces

## Treasurer—

Frank E. Tull . . . . . Albuquerque

## Delegate to A. M. A.—

Wm. R. Tipton . . . . . East Las Vegas

## Alternate—

S. D. Swope . . . . . Deming

## Council—

E. B. Shaw . . . . . Las Vegas

S. G. Von Almen . . . . . Clovis

L. S. Peters . . . . . Silver City

## Managing Editor State Journal—

R. E. McBride . . . . . Las Cruces

## Next Meeting Place—

. . . . . Albuquerque, 1914

# COMPONENT SOCIETIES AND MEMBERS.

## Bernalillo County Medical Society:

President, G. S. McLandress, Albuquerque. Vice-Presidents, J. A. Reidy, Albuquerque; E. F. Frisbee, Albuquerque. Secretary, Frank E. Tull, Albuquerque. Treasurer, E. F. Frisbee, Albuquerque. Censors, P. G. Cornish, Albuquerque; W. W. Spargo, Albuquerque; W. G. Hope, Albuquerque.

## Members:

F. C. Bakes, Albuquerque; S. L. Burton, Albuquerque; LeRoy C. Brock, Jemez; D. H. Carnes, Albuquerque; M. G. Cartwright, Albuquerque; J. W. Colbert, Albuquerque; P. G. Cornish, Albuquerque; Jos. S. Cipes, Albuquerque; J. S. Easterday, Albuquerque; J. W. Elder, Albuquerque; C. A.

Frank, Albuquerque; E. F. Frisbee, Albuquerque; F. P. Fadeley, Albuquerque; W. G. Hope, Albuquerque; R. L. Hust, Albuquerque; William Hutchinson, Gibson; H. B. Kaufman, Albuquerque; Geo. O. Keck, Albuquerque; C. E. Lukens, Albuquerque; J. F. Lilly, Albuquerque; M. M. McCreary, Magdalena; G. S. McLandress, Albuquerque; W. T. Murphy, Albuquerque; E. Osuna, Albuquerque; W. A. Parvis, Socorro; J. F. Pearce, Albuquerque; W. E. Provines, Albuquerque; F. J. Patchin, Albuquerque; J. A. Reidy, Albuquerque; L. G. Rice, Albuquerque; E. W. Richardson, Albuquerque; Mendel Silber, Albuquerque; A. G. Shortle, Albuquerque; W. W. Spargo, Albuquerque; W. T. Salmon, Albuquerque; Frank E. Tull, Albuquerque; William Sheridan, Albuquerque; W. R. Lovelace, Albuquerque; A. M. Wigglesworth, Fort Defiance, Ariz.; J. H. Wroth, Albuquerque; M. K. Wylder, Albuquerque; W. R. Lockett, Carthage; H. G. Wilson, Gallup; Jno. E. Hastings, Bernalillo; J. R. Haynes, Havnes; Lewis C. Day, Albuquerque; W. G. Bryan, Albuquerque.

## Otero County Medical Society:

President, C. A. Miller, Tularosa. Vice-President, J. R. Gilbert, Alamogordo. Secretary-Treasurer, J. G. Holmes, Alamogordo. Censors, J. R. Calloway, Mescalero; J. R. Gilbert, Alamogordo; E. D. McKinley, Alamogordo.

## Members:

J. R. Gilbert, Alamogordo; J. G. Holmes, Alamogordo; E. D. McKinley, Alamogordo; J. R. Calloway, Mescalero; C. A. Miller, Tularosa; L. K. Warren, Cloudcroft.

## McKinley County Medical Society:

President, W. E. Handy, Gallup.  
 Vice-President, F. E. Coudert, Gallup.  
 Secretary, F. de la Vergne, Allison.  
 Treasurer, H. G. Wilson, Gallup.  
 Censors, G. H. Noonan, Navajo; A.H. DeLong, Gallup; C. J. K. Moore, Rehobeth.

## Members:

W. E. Handy, Gallup; F. E. Coudert Gallup; H. G. Wilson, Gallup; J. M. Boyle, Gallup A. H. DeLong, Gallup; Wm. Hutchinson, Gallup; J. W. Stoffer, Heaton; G. N. Noonan, Navajo; C. J. K. More, Rehobeth; F. A. de la Vergne, Allison.

## Las Vegas Medical Society:

President, C.S. Losey, E. Las Vegas.  
 Vice-President, W. P. Mills, East Las Vegas. Secretary-Treasurer, W. E. Kaser, East Las Vegas. Censors, M. F. DesMarais, Las Vegas; H. M. Smith, East Las Vegas; W. R. Tipton, East Las Vegas.

## Members:

C. S. Losey, East Las Vegas; W. P. Mills, East Las Vegas; W. E. Kaser, East Las Vegas; W. R. Tipton, East Las Vegas; E. B. Shaw, Las Vegas; H. M. Smith, East Las Vegas; H. J. Mueller, Las Vegas; Wm. Howe, East Las Vegas R. K. McClanahan, East Las Vegas; F. H. Crail, East Las Vegas; J. M. Cunningham, East Las Vegas; M. F. DesMarais, Las Vegas; H. A. Miller, Las Vegas; H. W. Hauf, Las Vegas A. E. Northwood, Wagon Mound.

## Grant County Medical Society:

President, E. S. Bullock, Silver City.  
 Vice-President, V. F. Mueller, Silver City; Secretary - Treasurer, I. D.

Loewy, Silver City. Censors, F. D. Whitehill, Silver City; L. S. Peters, Silver City; O. J. Westlake, Silver City.

## Members:

E. S. Bullock, Silver City; V. F. Mueller, Silver City; I. D. Loewy, Silver City F. P. Whitehill, Silver City; L. S. Peters, Silver City; O. J. Westlake, Silver City; G. K. Angle, Silver City; Wm. Mac Lake, Silver City; S. A. Milliken, Pinos Altos; O. T. Hyde, Silver City; J. O. Walkup, U. S. A., Fort Bayard; T. P. Williams, Fierro; E. Parham, Mogollon; G. E. Bushnell, U. S. A., Fort Bayard; W. H. Tefft, U. S. A., Fort Bayard; C. E. Holmberg, U. S. A., Fort Bayard; E. H. Bruns, U. S. A., Fort Bayard; R. C. Loving, U. S. A., Fort Bayard; S. W. Marietta, U. S. A., Fort Bayard; L. R. Pouse, U. S. A., Fort Bayard; C. J. Logan, Silver City.

## Dona Ana County Medical Society:

President, H. M. Cornell, Las Cruces. Vice-President, C. T. Sands, Las Cruces. Secretary - Treasurer, T. C. Sexton, Las Cruces. Censors, J. H. Johnson, Organ; B. E. Lane, Las Cruces; C. T. Sands, Las Cruces.

## Members:

H. M. Cornell, Las Cruces; J. H. Johnson, Organ; B. E. Lane, Las Cruces; A. E. Lauson, Anthony; R. E. McBride, Las Cruces C. T. Sands, Las Cruces; T. C. Sexton, Las Cruces.

## Santa Fe County Medical Society:

President, James A. Rolls, Santa Fe. Vice-President, F. E. Mera, Santa Fe. Secretary-Treasurer, Stanley G. Small, Santa Fe.

## Members:

Wm. Lindley Brown, Espanola; J.M.

Diaz, Santa Fe; C. E. Gunter, Santa Fe; W. H. Harroun, Santa Fe; W. K. Livingston, Espanola; Wm. H. Lloyd, Santa Fe; Jas. A. Massie, Santa Fe; Frank E. Mera, Santa Fe; Friend Palmer, Cerillos; Jas. A. Rolls, Santa Fe; S. G. Small, Santa Fe; Dora Wiederanders, Estancia; E. F. Wiederanders, Estancia; F. A. Yoakum, Cerillos; Louis F. Murray, Santa Fe.

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Curry County Medical Society:

President, L. A. Dickman, Clovis.  
Vice-President, J. Foster Scott, Clovis.  
Secretary, J. B. Westerfield, Clovis.

Members:

J. B. Westerfield, Clovis; J. Foster Scott, Jr., Clovis; D. D. Swearingen, Clovis; A. L. Dillon, Clovis; L. A. Dickman, Clovis; Clyn Smith, Clovis; S. G. Von Almen, Clovis; J. R. Haney, Jr., Clovis.

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Quay County Medical Society:

President, H. D. Nicholls, Tucumcari. Vice-President, J. M. Doughty, Tucumcari. Secretary-Treasurer, O. E. Brown, Tucumcari. Censors, B. F. Herring, Tucumcari; F. W. Noble, Tucumcari; O. E. Brown, Tucumcari.

Members:

J. P. Boggs, San Jon; O. E. Brown, Tucumcari; J. M. Doughty, Tucumcari; J. E. Manney, Tucumcari; H. D. Nicholls, Tucumcari; F. W. Noble, Tucumcari; B. F. Herring, Tucumcari; M. M. Thompson, Tucumcari; J. C. Woodburn, Cuervo.

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Luna County Medical Society:

President, E. M. Paine, Deming.  
Vice-President, M. M. Crocker, Lordsburg. Secretary - Treasurer, S. D.

Swope, Deming. Censors, J. G. Moir, Deming; M. M. Crocker, Lordsburg; P. M. Steed, Deming.

Members:

S. D. Swope, Deming; P. M. Steed, Deming; J. G. Moir, Deming; R. C. Hoffman, Deming; E. A. Montenyohl, Deming; R. S. Spears, Deming; F. Janet Reed, Deming; F. D. Vickers, Deming; J. O. Hatcher, Deming.

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Chavez County Medical Society:

President, H. A. Ingalls, Roswell.  
Vice-President, W. C. Buchly, Roswell. Secretary-Treasurer, C. M. Yater, Roswell. Censors, C. M. Mayes, Roswell; J. W. Kinsinger, Roswell; R. L. Bradley, Roswell.

Members:

F. A. Allen, Roswell; C. F. Beeson, Roswell; R. L. Bradley, Roswell; W. C. Buchly, Roswell; A. F. Evans, Elida; H. V. Fall, Roswell; E. M. Fisher, Roswell; H. A. Ingalls, Roswell; W. T. Joyner, Roswell; J. W. Kinsinger, Roswell; J. W. Laws, Lincoln; C. M. Mayes, Roswell; C. F. Montgomery, Roswell; L. H. Pate, Lake Arthur; T. E. Pressley, Roswell; D. R. Scott, Capitan; C. M. Yater, Roswell.

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Colfax County Medical Society:

No report as to officers.

Members:

L. L. Cahill, Springer; J. J. Shuler, Raton; J. L. Hobbs, Raton; T. B. Lyon, Raton; N. A. Schwald, Maxwell; C. S. Harper, Cimarron.

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Members Not Members of a County  
County Society:

F. A. Dillon, Laguna; T. W. Watson, Lincoln; J. M. Shields, Jemez;



W. W. Markoe, Fort Stanton; D. C. Cooney, Roswell; H. D. Sewell, Chama; A. E. Bessette, San Marcial; C. G. Duncan, Socorro; W. T. Brown, Watrous.

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Eddy County Medical Society:

No report as to officers.

Members:

F. F. Doepp, Carlsbad; T. B. Quirey, Carlsbad; W. G. Cowan, Carlsbad; M. B. Culpepper, Dayton; Chester Russell, Artesia; E. S. Furay, Lake-wood; A. A. McDaniels, Lovington.

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## MEDICAL LEGISLATION AND THE LAITY.

Address of Dr. LeRoy S. Peters of Silver City, New Mexico, as President of the New Mexico State Medical Society at the Thirty-Second Annual meeting, Albuquerque, October 2nd, 1913.

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Not long ago I had the pleasure of listening to the long-haired eccentric genius of East Aurora, Elbert Hubbard. Some ten years past I ceased to read his magazine and his various other literary feasts, not so much because I had tired of them but because the man had, figuratively speaking, reached the end of his rope and had nothing new to impart. I was surprised, therefore, to find that his views on the medical profession had changed. At the time I mention he was wholly antagonistic; now only partially so. His knocks were confined to the old time practitioner, who to a great extent has passed away, and be it said in Mr. Hubbard's favor, he spoke in an almost human way of the medical

profession of to-day and their stand along the lines of preventative medicine.

I mention this merely to show the general trend of public opinion. The laity feel far more kindly disposed toward progressive medicine to-day than they did ten years ago, and the reason lies in the passing of the old physician and the coming of the scientific investigator.

Yet, for my part, I have great reverence for the old country doctor, and I think there is not one among you who does not feel a deep sorrow at his passing. He came as close to you as the clergy, shared your sorrows and joys; brought you into the world; watched you grow; cared for your children and ministered unto you in your last illness, guiding you in ways he deemed best from life's beginning until life's end.

Seldom now is he seen. Progress in all lines of endeavor has been equaled by progress in medicine, and to-day the doctor with his saddle bags and pill box, hurrying to the sick bed, is supplanted by the physician who tells you how to live that you may never know the pangs of disease.

I think you will agree with me that the medical profession is misunderstood. As evidence of this I cite you to the yearly fight in every state legislature regarding a medical practice act. The men you send to your lawmaking bodies; the influential papers of your state; the farmer who sits around the wood stove in the country store; everybody tells you that the medical trust is filching from you—the laity—your freedom. As a matter of fact, the medical trust, as you call it, is trying

heart and soul to protect you from the quack, the charlatan and the devil incarnate, who would rob you of your last penny to make profit for himself. The laws regulating the practice of medicine in the states to-day try to keep from your door the man, be he from the regular school, the homeopathic, the eclectic, the osteopathic or what not, who is not qualified to practice the art of healing.

And here let me digress long enough to make rather a broad statement, one which may provoke criticism. For my part I do not care what cult may practice medicine or what form of treatment he or she use, provided they have had the same preliminary education and sound grounding in all branches of medicine except their particular method of treatment. It matters not to me whether a doctor gives you pills to get you well, whether an osteopath rubs your spine to effect a cure, or whether a Christian scientist prays Almighty God to rid you of disease, just so long as they are on a common footing, or in other words have had the same general training.

It is this question of training which makes a physician, and recognizing this fact the American Medical Association has waged war on the cheaper schools so that to-day the number of medical colleges in the United States is reduced nearly half that of the past. The state boards of registration are raising the education requirements before they will grant a license to practice medicine. Better medical schools are requiring a higher preliminary education before they will admit a student to the study of medicine; in fact, the entire trend of medicine and the

medical profession of to-day is for better schools, better health laws and better doctors.

But the Utopia in medicine will be reached when the physician is paid by the state; when the doctor need not practice medicine for a living, but for the sake of science. Let me say that when the almighty dollar does not stand between physician and patient many of the little ills that flesh is heir to, and many of the pettinesses and bickerings in medicine will have passed away.

But enough of this generalizing. Let us get down to hard, stubborn facts. It is my desire to put in their true light conditions as they have existed, as they do exist and as we hope they may exist. There was a time in this free country of ours when a boy green from the farm with the soil still clinging to his cowhide boots, could enter a so-called medical college, study nights, work daytimes at some picked-up job, never see a sick patient, or attend a clinic, either surgical or medical, and at the end of two years be given a degree as doctor of medicine and surgery. He was then equipped to practice medicine in any state or territory in the United States and went forth with his diploma tucked beneath his arm to learn the practical side of medicine by experience as it came to him through the course of his medical career. Then medicine was an art. To-day it is a science. The country doctor in the eyes of the patient stood next to the Creator. His word was law. His pill box carried the power to restore lost health, yes, even to bring the dead to life again. Medicine, even then, within the memory of everyone

present, was little better than the sorcery and witchery of the middle ages.

Medical schools of the better class in these days did not require a high school diploma as entrance requirements. Pay your tuition, attend lectures, pass quizzes and you were entitled to your degree. It mattered not what medicine you knew. The medical school with few exceptions was a commercial enterprise established by a few physicians to add to their income and to increase their reputation in the community. Schools became fads, so that in America at one time we had over half the world's supply of medical colleges, and this be it said much to our discredit.

The country was ridden by quacks and charlatans. Patent medicines flourished and the public was eager to believe all the labels and advertisements claimed for this and that specific. Medical institutes for the sure cure of "private diseases" so-called, of men and women, were to be found in every city of any size throughout the length and breadth of the entire country. All this arose through lack of confidence in physicians, a lack which was surely justified, since a large proportion of the profession was recruited from the ignorant and incompetent graduates of the worse than worthless schools.

At that time no one questioned the motives of the doctor. Why? Because a large part of the doctors themselves were intent on fooling the public and the public as Barnum says, were perfectly willing to be fooled.

But conditions have changed to a great degree. The night medical schools have nearly all been closed and the graduates of the few that remain

are able to find but a limited number of states where the board of medical examiners will grant them a license to practice medicine. Paid professors and instructors now devote their entire time to the teaching of the student body in lieu of the busy doctor who owned stock in the college and gave only his spare moments to the teaching of medicine. Well equipped laboratories, clinical instruction and practical experience are the rule now where once these essential factors were the exception.

It now takes a four years course in a medical college to attain a degree of doctor of medicine where formerly two and three years were sufficient. Most of our better schools require from one year up to a literary degree before they admit students to the study of medicine. Nor does the obtaining of a degree necessarily mean that the graduate can practice his profession. To-day every state has its board of medical examiners who pass upon the ability of a given applicant before he is granted his medical license. And year by year these state boards keep raising their requirements. To-day there are six states that require a medical graduate to have had two years collegiate work previous to his entrance into a medical school, four that require one year of such preparation and twenty-five that insist on at least a high school diploma.

Here let me pause to say that I am well aware that some of my critics among the laity will say, "But the doctor does that merely to protect his own interests. He has formed a large medical trust the like of which no one has ever dreamed. A greater corporation



in restraint of trade has never existed. In the not distant future we shall all be compelled to consult a doctor, pay his fee no matter how large, bow to the dictates of his will, if we even desire a simple laxative for a common case of constipation."

These objections sound to the ears of the honest physician amusing. They cannot but provoke a smile. Yet they are among the arguments put forth by some of the best thinking people of the country. These same arguments have been originally put into the minds of the same people by such powers for evil as the League for Medical Freedom, which by the way, is said to be made up of vendors of patent medicine, quacks, charlatans and like ilk, whose very existence is threatened by the reforms advocated by the American Medical Association.

That the American Medical Association is a trust in one sense of the term may be true. It is a trust inasmuch as the best elements of the profession have bound themselves into a great body to better conditions in medicine within their own ranks, and to stamp out of existence fraud and charlatanism, which in the past have been hangers-on and have used the cloak of a great science to cover their own misdeeds and shortcomings. If this be a medical trust then pray for its existence, for never in the history of the world has a corporation been more faithful in its discharge of public duties, nor a body of men been more eager to advance the standards of life and living for the benefit of a great humanity.

Let it be said that a great many agencies are co-operating with the American Medical Association in this

great reform movement. Aided by such publications as "Nostrums and Quackery" and the "Propaganda for Reform," and by such organizations as the "Council on Pharmacy and Chemistry," the "Council on Medical Education," and the "Council on Health and Public Instruction," many of our best magazines and papers have taken up the fight to such an extent that a large proportion of the American people realize that the doctor or institute advertising in the lay press is a fraud and menace to society; that patent medicines are not only useless but harmful; that so-called "cures" for consumption, cancer, diseases of men and women, liquor and drug habits, are only sold to part the poor unfortunate from his hard earned money, and that they leave him a hopeless invalid and perhaps have so wasted valuable time that a cure under proper treatment is impossible.

The postoffice department has put a check on the mail order faker. The pure food and drug act has forced patent medicines to publish the amount of habit forming and dangerous drugs contained in their mixtures. The religious journals and all the better magazines of the country bar from their pages advertisements of such medicines and quack doctors. All in all, the reform movement started by the American Medical Association is bearing fruit, and as a consequence, much opposition has been waged against its efforts.

This, of course, is natural. It is to be expected. People who for years have made fortunes out of a credulous public will not give up their gold mine without a struggle. The part that is hard to undersand is why, by cleverly



worded articles and loud calamity howling, they are able to enlist so many well meaning people on their side.

Here in our own state some of our most influential papers, one in particular, can see little of good in the American Medical Association. It also sees great harm in the large powers vested in medical examining boards. In one editorial this paper went so far as to state that if the medical practice act before the last legislature were made a law no one could buy a dose of Epsom salts without a doctor's prescription. Most of the editorials were as amusing as this, and most of them bore about as much truth. The editor, I believe, was honest in his convictions, but he had been grossly misinformed. He felt that the osteopaths, the eclectics, the homeopaths, the electro-therapeutists, etc., were to be barred from the practice of their art, and dwelt at great length upon the rights of the people to employ this or that school of medicine, which he stated would not be possible if the "trust" were allowed to make the laws regulating the practice of medicine in New Mexico. No doubt the editorials exerted a great influence, at least we feel sure from after developments that the editor and his paper were on the winning side. The bill for a sane medical law was defeated.

Before we go further, let us draw a word picture of conditions as they exist in New Mexico to-day. As president of the organized profession of this state I hang my head in shame. I feel that we are most humiliated. Our laws on matters of health and the laws regulating the practice of medicine are a disgrace to a semi-civilized community. To think that a supposedly civilized unit of our Nation should

tolerate such conditions is unbelievable. Yet to-day New Mexico is the dumping ground of the medical profession of America, yes, even of the entire world. Graduate from a medical school, here or abroad, try to obtain a license in any state or territory in the United States, and if you fail, come to New Mexico, the Land of Sunshine, the Land of Opportunity. She will open her doors and in the majority of cases—by far a big majority—you will secure your license to practice without an examination, merely by presenting so-called credentials and the payment of a license fee.

Wherein lies the blame? Can you place it at the door of the doctors who compose the State Board of Health and Medical Examiners? Decidedly no! But you can place such blame at the feet of the laity; the voters who fill our legislatures with a body of law-makers who thus far have turned a deaf ear to the profession and listened to the arguments of the uninformed.

As evidence of the fact that our law is inferior I cite you to the reciprocal relations existing between states. Here in New Mexico we recognize licenses from any state, but not a state in the Union will recognize a license issued by the Board of New Mexico. Every year sees advances in educational ways in other states and every year sees New Mexico in the same rut, and yet the people of this commonwealth would block the legislation on the grounds of medical freedom.

Just what is this so-called medical freedom as advocated by the laity? I believe I can tell you. They desire a law that will require high standards of education, both literary and medical, to

cover the regular school of medicine. Then they desire a separate law covering every sect of healing from osteopaths to christian scientists.

Here let me digress long enough to say that the medical profession is responsible for the existence of all other forms of healing. Christian science was born through lack of attention on the part of the medical profession to mental suggestion in the treatment of mental diseases. Other sects arose through efforts of the American Medical Association to enforce the high standards of education in the regular school. In other words, the newer schools are short cuts to the practice of medicine. The standards of these schools are as low as has ever existed in the regular colleges. Graduates are turned out in large numbers yearly and the country is fast becoming filled with a horde of incompetent practitioners, who are filling the ranks left vacant by the high standards in the regular schools of medicine.

The solution of this great problem lies in the state board of medical examiners. Create one board with representatives of each school or sect. Insist on the same preliminary requirements. Examine each applicant in the same fundamental branches, leaving the system of healing to the member of the board from the applicant's particular school. Do this and the same high standard of scholarship, the same high degree of intelligence, will be marked in the doctor whether he be from the regular school, the osteopathic, the homeopathic, or what not. You have then learned no school, no sect. They are all equal in the eyes of the law, and what is far better, they are competent men

and women, doctors whom you can trust whether, as I have said before, they give you pills to get you well, rub your spine to effect a cure, or pray Almighty God to rid you of disease.

I maintain, and I think any fair minded person, who has given the matter sufficient thought, will agree with me, that to control disease and to keep in check disastrous epidemics we need to call into play the police power of the state. Just what this police power may mean as determined by the various commonwealths, or how far reaching may be its application, is not in the scope of this address; but suffice it to say that in every description of the police powers of the state that has been given by text writers or by the decisions of our courts is found a direct reference to the protection of lives and health of persons. Hence, a most proper and in fact, the most beneficial exercise, of this police power is found in the regulation of the practice of medicine. It matters not to me whether my neighbor desires to call a christian science practitioner to treat himself or any member of his family for some non-contagious disease, but it does concern me when he calls such persons in the guise of healer, and such persons fail to diagnose diphtheria, or any other contagious disease, and simply treats it as an ordinary ailment, thereby exposing the remainder of the population to dangerous illness, untold suffering and in many cases, death. Here it is unquestionably the duty of the state to protect the lives of infants, children and misguided adults from the ignorant practice of unqualified healers. It

is not a question of liberty and the exercise of personal rights. No more so, than should I choose to throw myself before an approaching train with the avowed intention of taking my own life, or inflict untold tortures on an animal I might own merely because I offer the right of proprietorship. In the former case the law would prohibit me, and the humane society would direct the law against me in the latter. Since we still have with us in large numbers people who seem to lack sufficient judgment in matters of health then it becomes the duty of the state to care for them and watch over their acts by exactly the same power they would exercise over one of unsound mind by virtue of insanity or various degrees of imbecility.

At present we need such protection in New Mexico. The law brought to the attention of the last legislature was in effect the law as I have outlined for you to-day. It was twice defeated, Public opinion would have none of it. Personally, were there not a higher duty of a physician than mere personal consideration, I would say, "Let the public hang. Throw down the few bars we have already established and let the inferior elements in medicine of all nations prey upon the health and purses of our people." Reaction would surely follow, and by the laws of natural progress the people would appeal to the better elements of the profession and demand laws for their protection.

But such is not the duty of the well meaning physician. We, the organized profession of New Mexico, must keep plodding on, suffering defeat after defeat, yet ever striving to better health

conditions that in the years to come New Mexico shall take her place among her sisters in this great commonwealth of states, her laws an object of admiration, not of ridicule.

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### SOCIAL RELATIONS OF THE DOCTORS AND THEIR FAMILIES.

Address of Dr. J. W. Kinsinger, Roswell, New Mexico, as Chairman of the Section on Practice of Medicine at the 32nd Annual meeting of the New Mexico Medical Society, Albuquerque, N. M., Oct. 2, 1913.

To preface the title of my paper it is necessary that I make it understood that I do not have reference to the doctors of Roswell, nor any one in particular, for I believe that the organized medical body of my home town is on better and more friendly terms than exist in many other localities; and our families have been fully on an average in this respect.

The point I wish to bring out in this paper is the general impression the laity have of the social condition existing among us and our families, and whether there is any foundation for their opinion, and what are the causes of this belief.

Is the social intercourse of ourselves and families different from other professions and other competitive business? Are these impressions erroneous? Do we give the outside world cause, directly or indirectly, for such opinions? If well founded, whose fault is it, and what are the remedies to erase them from the memories of our accusers for all time to come.

I hope you will pardon me for selecting this subject in lieu of a scien-



tific one relating directly to medicine or surgery; but it is so seldom discussed among us that I hope it will be of at least some interest to you and perhaps profitable. We all too well know the hardships and the unpleasant things that confront us daily in our work and the need of recreation and social intercourse, to rest our minds from our daily toil and mental worry that weigh down our very soul at times. We then need encouragement and a glad hand from somebody. To whom could we go to be served? Why, the doctor. If we get into a tight with a serious case, who can we depend upon to help us? Why, the doctor. When we get bad results in surgery and some unscrupulous hungry lawyer wants to make a fee and induces our former friend and patron to sue us for malpractice, to whom do we look for help and do us justice? Why, the doctor. If by the help of our best friend we obtain justice, what do the laity say? Graft; Doctors' Trust. The laity, notwithstanding these cohesive signs and actions, think there exists a jealousy among us, whether true or not.

Now, what is the remedy for this? The ball has already begun rolling along this line by meeting socially more frequently. Our society contemplates once a month to take six o'clock dinner together at some hotel, which will soon be noticed and talked about, and in my opinion will educate the public that we are not such a jealous lot after all, and further it will cultivate a closer social relation among us, form a nucleus for our families to become better acquainted and have more frequent social intercourse.

I believe that our wives and children will visit each other more frequently.

which will make them and us happier and lead the doctor by the way he hardly knows. In reading social adds in the local press you seldom see many physicians' names. Why? Is it because he is so wedded to his profession? Or is it because of his or his family's social standing? No, it is because when occasionally he does take courage by the persuasion of his family that he shows his presence and about at the very moment he is enjoying the mirth of laughter and music, the phone rings and a hurried message calls for the doctor to come to see Mrs. Jones who is about to give birth, or Mrs. Johnson who has an attack of acute indigestion, and so on. The doctor makes hurried preparation to see his patient and almost forgets that he has some one to take home. He then has to either hastily take them home or ask some friend to do so. Is it then a wonder that the doctor or his wife are not oftener seen at social gatherings? This condition does not apply to any other profession. This is then not only a great barrier to himself but also to his family. Is it any wonder that the doctor's wife tells the minister's wife that she would never marry a doctor again. The minister's wife asks why. Because the doctor is gone from home all the time. The minister's wife then says I would never marry a minister again. Why? Because he is at home all the time.

About the only time the doctor's wife can take a drive or make calls with him is when he goes to see his patients. This is almost a daily habit with a majority of us.

It frequently occurs that when the doctor's wife gives a six o'clock dinner or other entertainment for us that



we are called away in the middle of our repast or entertainment to see some one in need of medical attention. Notwithstanding all the above mentioned facts and drawbacks, I do not believe that we are so much behind in our social relations. If there is any truth in it, it is not because of jealousy existing among us or our families, but duty to which we and our families become reconciled. These social sacrifices we so frequently make are not always mercenary, but often charity or a desire to give relief to the suffering indigent. Why then should we be accused of jealousy when we not only go to see these indigent sufferers but call in counsel in grave cases just the same as if we were well paid? There was a time not very distant that our accusers had some foundation and that was before the medical profession was so well organized and where medical societies in small towns were almost unheard of. Then in a measure it is true that in many towns doctors and their families were not on speaking terms, where medical ethics was to take as many cases from the other fellow as they could, where consultation was resisted to the very last moment; and, when counsel generally had a private conversation with our patrons and in a few moments the attendant was informed that counsel would take charge of the case and attendant dismissed. This custom has, however, changed in nearly all communities on account of a closer alliance, better education and a more rigid requirement to graduate in medicine by nearly all medical institutions, and also our state and medical boards make it harder to obtain a license to practice. We are yet too far behind in this respect in

New Mexico although we have a much better law now than when I was a member of the Board fifteen years ago; and it is now the duty of every regular physician, and especially those who are members of our state society, to put forth his best efforts to have enacted a better medical practice act at our coming legislature.

In conclusion I will say that I hope we will soon realize that we are yet in our infancy in regard to our social conditions and that we may all put forth our best talents and efforts to dispel the clouds that overhang us and clear a brighter path, strewn with flowers and verdant skies that have at least few clouds and bring us closer together as brothers and sisters and make one large, united band that will be an immense power socially and politically.

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## Original Articles

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### SOME RACE OBSERVATIONS FROM AN EPIDEMIOLOGICAL VIEWPOINT.

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By HOWARD D. KING, M. D.  
New Orleans, Louisiana.

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Racial influences have always to be reckoned with when considering the question of disease distribution. The influence of race upon the dissemination of disease is, unfortunately, overshadowed by other forces; and added to this our knowledge of the subject is more or less dependent on the ever changing theories of pathology. Morbidity and mortality statistics which alone could furnish authentic information and in some cases altogether absent,

especially in those regions where the material would be most valuable—those regions, namely, where races of different color and bodily constitution live side by side under comparable conditions. Despite the crying need for such information, trustworthy statistics are obtainable from only the civilized countries, whose populations are made up from the more or less distinct divisions of the human race. The discussion of racial influences is to a certain degree linked with that of anthropology and ethnology.

It is not uncommon to note a variation of disease incidence upon different races residing in the same community; and it is not always possible to account for this varying incidence by the time worn argument—"a true racial variation in susceptibility to disease." Racial differences mean, among other things, wide variation in diet, clothing, mode of life, personal hygiene, acquired exemption, observance of prophylactic measures, and other equations; and before true racial susceptibility or non-susceptibility can be determined it is necessary that each of the foregoing influences be eliminated. However, after giving due consideration all these factors, there appears to remain, as concerns many maladies, a distinct variation in susceptibility between different races.

Of all the white races, the Jews are the most likely to reward a careful study of special morbid tendencies. Diabetes seems to possess a peculiar aptness for attacking the Jewish race, also nervous diseases and psoriasis. In America where no distinction between Jews and other natives of Poland and

Russia is made the mortality from phthisis, improbable as it would seem, is low. Can it be possible that the Jews are ridding their race of consumption by a process of natural selection? Notwithstanding these claims the writer believes that a careful survey of the tenement populations of the large American cities would show a very high death rate of tuberculosis among Jews. The relatively small amount of tuberculosis amongst the Jewish race has been commented on time and again and the reasons adduced for this supposed racial immunity have been as misleading as varied. Such things as in-breeding, Kosher meat theory, and freedom from alcohol have been the pet theories of those who were wont to declare the Jew as a race immune from tuberculosis. It must be recognized that tuberculosis displays no racial preferences. Within certain limits, depending on social conditions, the white, black, yellow and red divisions of mankind are all liable to tuberculous infection; and the differences noted in the frequency, type and course in different groups of people are attributable to the same causes, irrespective of racial affinities. The supposed racial immunity of the Jew to consumption are due to social conditions and not racial causes—the incidence of tuberculosis among Jews is dependent on social and economic environment and not racial or natural affinities. Wherever the Jews have lived among Christian populations their death rate has always been lower than that of other races; this has always been attributed to sobriety, simplicity, and care in diet, avoidance of violent labor, and the exemplary care

and training of the offspring, especially as concerns personal hygiene.

The African negro of untainted strain quickly falls a victim to tuberculosis, smallpox, tetanus and epidemic cerebro-spinal meningitis. Other diseases of which the negro is generally an exclusive subject are ainhum, gonorrhea, sleeping sickness, the filarial infections and also the parasitic diseases.

The tropical negro is particularly subject to pulmonary tuberculous infection when removed from his own country. It is needless to cite facts relative to the decimation of the true African negro in other climates than his own. In some of the countries into which negroes have been introduced they actually seem to melt away from tuberculosis. It was once thought that the death rate from pulmonary tuberculosis in the Southern States was lower among the blacks than the whites. This was true of conditions antedating the great civil conflict of 1861-65, but does not hold good to-day. Tuberculosis to-day is wreaking awful havoc among the negro population of the Southern States.

Within recent years it has been conclusively proven that the Italian in the congested districts of the large American cities is a most frequent victim of tuberculosis. The death toll of tuberculosis in this race has become alarming.

Painfully pathetic is the picture of the deterioration of the Italian in the great cities of the American Union, to which for years past they have been flocking in quest of remunerative work. The Italian youth of both sexes who before their twenty-first year in the case of females and their twenty-fifth

in that of males leave the rural districts of the motherland for the United States and pass at once into industrial or factory life at that critical period of their development are doomed to rapid deterioration, and in the case of quite one-third of them, premature death. To say nothing of anemia in every form, tuberculosis reaps its greatest harvest of victims amongst those who emigrate during, or a little after, the period of adolescence. Girls employed in tobacco factories, or as itinerant seamstresses, or as regularly engaged dress-makers, quickly fall victims to disease. For these latter three or four years in the establishments referred to, or tenement houses suffice to make them fertile media for the propagation of the Koch bacillus. The deadly surroundings in which the great majority of Italians live and labor, the insanitary and overcrowded associations, the long hours spent in factories and sweat shops, the thousand and one privations imposed by poverty and the zeal for wage earning, all this without adequate nutrition proportioned to the drain on the vital powers at a period of growth which is biologically the most important in life,—all this explains irrefragably the rich harvest reaped by tuberculosis among so many young people of this race. The bacillary invasion, in fact, is a natural coincidence in their already wasted organisms—a coincidence revealed in the circumstance that the period of greatest activity and diffusion of tuberculosis (15 to 45 years) corresponds exactly with the age of the great majority of immigrants from Italy. Again, in the case of Italian children born in America or who have landed in infancy the pre-



dominant signs of deterioration are seen in "Tuberculosis ossa," or tubercle in the glands or in the peritoneum; while from 15 years of age to 30 it is the pronounced oligæmia leading up to pulmonary tuberculosis, often of the miliary type, which claims the largest quota of victims. On the other hand, after the period of maturity and precisely among immigrants over 30, tuberculosis is less frequent, the signs of organic degeneration being those of the cardiac group, classed under exhaustion. Landing with an abundant stock of health and vigor due to an agricultural life reinforcing a robust constitution, the immigrant who has passed his thirtieth year, even when applying himself to occupations notoriously insanitary or pernicious, may present a florid appearance difficult to be reconciled with the surroundings of filth and squalor in which his work-a-day lot is cast. But even among such cases tuberculosis, whether pulmonary, genito-urinary, peritoneal or osseous, often declares itself among the general signs of physical deterioration, particularly among women. Particularly do these effects react perniciously upon the offspring. The great prevalence of rickets among the children of Italian immigrants is due not so much to insanitary conditions after birth as to the deep seated degeneration of the women during pregnancy, degeneration caused by fatigue in the erect posture and by alimentation deficient in the proteids and fats continued without change during the period of lactation.

Tropical affections present many anomalies as regards racial susceptibility. In this connection the absence

or rarity of yellow fever in the negro is a much mooted question. Yellow fever is one of the most fastidious and selective of diseases. In New Orleans there is said to be a regular scale of exemption, complete in the case of the full blooded negro, less in the mulatto or other man of color, less still in the dark complexioned Creole of French or Spanish parentage, while even the Southern European suffers less than the Britisher, and the Norse races fare the worst of all. A dark complexion implies a kind of acclimatisation to yellow fever similar to that brought about by prolonged residence in the tropics.

Now, that the transmission of malaria is no longer shrouded in mystery, it is not surprising to learn that in America death in the negro race from this cause is ten times greater than among the whites. In America the negro suffers from scarlatina than the whites.

In the tropics the white races fall quick victims to malaria, typhoid fever and hepatic abscess, while the colored races remain comparatively free.

Negroes suffer from measles much more than the whites in the United States, but for the decade ending in 1900 the children of Italian, Jewish, Scandinavian parentage died in much greater proportion than those of the colored race. Tetanus and trismus neonatorum are supposed to be particularly fatal among negroes; but here again it is probably the habits of the race that are at fault rather than anything in its physical constitution.

In the tropics the white races fall quick victims to malaria, typhoid and hepatic abscess, while the colored races

remain comparatively free. This personal equation in racial susceptibility is more than counterbalanced by the rarity of such conditions in the white as elephantiasis, chyluria and the other filarial disturbances, guinea worm disease, pinta, craw craw and tinea imbricata. The frequency of yaws or framboesia is, as a rule, largely dependent upon the amount of pigment in the skin of the different races. The Mongolian race is noted for the frequency with which they become sufferers from the majority of acute infections and to ophthalmia and trachoma; confined also exclusively to this race are a few animal parasites such as the distomum pulmonale and distomum sinense. The freedom of the negro from ophthalmia and trachoma is most striking.

From the standpoint of the race, cancer offers a most interesting study. There is some little grounds for considering cancer to be a disease of civilized communities and races, though here of course the question of failure in diagnosis comes in with double force. In cancer the enormous differences in mortality reports are doubtless largely due to the non-recognition of internal growths. Rural districts suffer quite as much as cities, and ancient cities more than the great and later centers of industry. The highest death rates from cancer all come from highly civilized communities. In Switzerland, a country representing a very extremely high type of true civilization and noted for the well being of its population, cancer has in recent years shown an alarming increase.

Cancer is said to be frequent in China, but rare in Egypt, the scene of a yet older civilization.

Cancer is quite frequent among the Norwegians, one of the blondest populations of the world, while it is stated to be a rare condition among Icelanders who are from the same race as the Norwegians.

It is now a generally admitted fact that cancer is strongly hereditary. It has been asserted that some races of men dwelling beyond the domain of civilization enjoy an absolute immunity from cancer. Our present day knowledge as to wide extra-human diffusion of malignant disease makes this appear seemingly improbable. More than one hypothesis has been advanced as to the physical constitution which furnishes the best seed bed for cancer. Cancer is most common in people who have a fairly healthy constitution in other respects.

As to complexion, reliable statistics show a high index of nigrescence in malignant disease. On the whole there is some reason for supposing cancer to be a disease whose development is favored by civilization, comfort and intellectual progress; and these are generally most prevalent in the races whom Huxley called Xanthochroi, although it is the swarthy individuals among them who suffer most.

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## Abstracts

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### VACCINE THERAPY.

The subject of vaccine therapy for general practitioners is discussed by J. H. Richards, New York (*Journal A. M. A.*, September 13), who says that the instructions given by drug firms are usually inaccurate or incomplete. There is no exaggeration in the statement that a vaccine treated

case requires more care than one of broken cardiac compensation. The first rule in preparation of vaccine is that an autogenous one is more desirable than any stock vaccine and he gives directions how they should be made, standardized and sterilized. As regards dosage, the first dose only is decided arbitrarily and all subsequent ones must be regulated by its effect. Marked local reaction and severity of symptoms and little or no improvement in the patient indicate too large a dose, while slight local reaction followed by no improvement or positive reaction as shown by the disease indicates too small a dose. A slight or no local reaction with slight increase of symptoms or none at all and improvement in the patient's condition indicates that a correct dose has been given. A negative phase after such is usually of about twenty-four hours duration, but may be absent. It should be followed by improvement. The second dose should not be given until the negative phase has been well passed, which should be within two to four days. In acute illnesses it is well to begin with small doses; larger ones with the risk of severe negative phases can be given in chronic diseases but not repeated too frequently. The interval should be increased or diminished in direct proportion to the negative phase and the duration of the positive phase. A severe prolonged negative phase indicates a longer interval and smaller dose, and it is well to err, if at all, on the safe side. As a general rule it can be said that vaccine is useful in every chronic bacterial disease, and Richards gives a list of those and the bacteria that seem to be indicated. Vaccines are useful only for prophylactic

immunity and to increase resistance, and should never be used to the exclusion of other methods that may control an infection.

#### HYDROTHERAPY,

Curran Pope, Louisville, Ky. *Journal A.M.A.*, September 13) emphasizes the importance of hydrotherapeutic treatment for conditions of nervous fatigue. He considers the condition a complex one, largely toxic and due to improper adaptation to heredity, environment or reality. Its symptoms may occur alone or with other ailments. The physiologic action of hydrotherapy is produced through its effect on temperature and mechanically on the peripheral sensory nerves, but brief applications with reaction do not particularly affect temperature. He says: "The circulation is increased on the surface by heat, and is accompanied by dilated blood-vessels, quickened heart action and lowering of arterial tension. Cold contracts the surface of blood vessels, slows the heart action, decreases the pulse-rate and raises arterial tension; it is followed by reaction with moderately dilated blood-vessels. Respirations increase in number, lessened in depth and oxygen and carbon dioxid diminished by heat. Cold on the contrary, increases the amplitude and depth as well as the absorption of oxygen and the elimination of carbon dioxid. On the nervous system, the direct action of water through its thermic and mechanical effects is conveyed to the center and there reflected in a thousandfold ways, producing results both tonic and sedative that make it a true reconstructor. Metabolism in all its phases is



affected by hydrotherapy, less in degree in the case of heat than with cold. As a tissue up-builder, tonic, stimulant, eliminant and depletive, it is unequalled. Muscular tissue is relaxed and enervated by heat; stimulated, revived and toned 33 1-3 per cent by cold. The blood is changed, leukocytosis induced, opsonic index raised, purification promoted, hemoglobin increased, corpuscles enriched and the alkalinity made greater by these applications. Many methods may be employed, but tonic (cold) hydrotherapy, followed by reaction, is the aim and object to be achieved. These may be both local and general." It increases drug absorption and distribution and thus favors their activities. Pope claims that hydrotherapy, through its above stated effects, strikes at the root of the trouble and is by far the most important of the physical measures used in the treatment of nervous fatigue.

#### SYPHILIS AND THE NERVOUS SYSTEM.

J. Collins, New York (*Journal A. M. A.*, September 13), considers the prevention of syphilis one of the most urgent and important problems for the physician and specially devotes his article to the disease it produces in the nerve centers. The bulk of all organic nervous disease are syphilitic. Not long since we were taught that involvement of the nervous system was a late manifestation of the disease; now we know that this is not so. The most serious of the organic diseases of the nervous system are syphilitic; myelitis and cerebral and spinal endaritis may occur during the first months after the infection, and tabes and general paresis, which are exclusively due to syph-

ilis, often display their initial symptoms within five years. The conception of parasyphilis and metasyphilis have been a drawback, he says, in our treatment; now we know that syphilis is syphilis, no matter in what form it is encountered. The Wassermann reaction shows us this, though it may not be strictly specific. In the Neurologic Institute of New York a hospital devoted exclusively to nervous and mental diseases, the Wassermann reaction has been tested upwards of ten thousand times in a great variety of nervous diseases, and in all these the evidence of syphilis agreed with the clinical findings and the positive reaction. The negative Wassermann reaction does not, however, necessarily exclude syphilis. The treatment by the rank and file of the profession of the present day is the old one of mercury by the mouth for a year, mixed treatment for a year and after that the iodids alone. He does not say that this is practiced by all, but for one case properly treated and controlled by the Wassermann reaction, he believes that twenty are treated in the old-fashioned way. The old beliefs are regrettably still held by the majority and are even taught in some places. Syphilis is not a local disease and its primary manifestation is not by any means necessarily the classical chancre. The spirochete may enter the body in various ways and the sooner we can get at it with a spirochetecide, like salvarsan, the better. Hence it dangerous to wait for secondary manifestations, and from his experience as a neurologist he believes it dangerous to trust to mercury by the mouth. It is more than likely that there are definite strains or varieties of the spirochete and that one of these

may elect the nervous system as others do the skin. This cannot be proved at present, but it is scarcely a coincidence that so many of Collins' syphilitic patients had a history of light primary attacks. He says one may have a light attack of diphtheria or typhoid and be properly congratulated, but to have a light attack of syphilis is comparable to being introduced to the executioner a long time prior to execution. With the present difficulty of obtaining reports of cases, statistics of the number of syphilitics developing nervous diseases are out of the question. In conclusion, Collins discusses the clinical and therapeutic value of the Wassermann reaction and the dangers and comparative values of salvarsan and neo-salvarsan. He thinks the dangers have been exaggerated. In nearly 1,000 administrations of salvarsan he has seen serious consequences in only one case, an apparent myelitis which recovered in four months, and was probably edema rather than inflammation. Severe toxic effects have been observed in four cases similar to acute arsenical poisoning but readily yielded under treatment. Salvarsan, he thinks, is more efficient than neo-salvarsan, but though the latter has some advantages in administration, its effects are not so good.

#### SPHENOPALATINE GANGLION NEUROSIS.

Dr. Kyle in a paper on "The Nasal Septum" compares the normal thin vertical septum with a thickened, somewhat bowed septum and declares that any departure from normal renders the septum a pathological one. Thickness of the septum is due to a localized perichondritis or chondritis, and if in bone,

to an osteitis, due to some local or general infection, and originating sometimes from a sinus disease. In old patients with a history of syphilis the bony septum is found to be thickened and sclerosed, the bone being so hard that it is impossible to bite through with a Ballinger forceps.

He said that a deflected septum in early life, if pronounced enough to attract attention, should be operated on regardless of age. In his own experience, old age is no contradiction for the operation. After calling attention to the nerve supply of the nose he points out the manner of benefits to be derived from regional anesthesia; dwells upon the benefits to be derived from the operation, and makes the following deductions: the majority of cases of neurosis of the nasal nerve and sphenopalatine ganglion are of the non-suppurative type and thus more difficult to diagnose. Swelling and anemia of the mucosa differ very little in their effect upon the already unstable nervous system. The vasomotor and trophic system are profoundly influenced by the nasal pressure and occlusion from a deflected septum. Some of the symptoms of irritation of the sympathetic system are contraction, mental apathy, a feeling of fullness in the attic of the nose and sometimes nausea and skin manifestations characteristic of pronounced vasomotor disturbance. Additional symptoms of pressure are asthenopia, migraine, and occasional feeling of constriction, and pain in the eye-ball, temple and forehead. We cannot look upon the enumerated nasal symptoms as a so-called neurosis, for in a great majority of cases pain in the area supplied by the trifacial nerve has a distinct local origin and the neu-

rosis is only an expression of the local irritation. The so-called reflex symptoms are usually absent. Symptoms of pressure in the region of the nasopalatine nerve and the branches of Meckels ganglion which supply the anterior portion of the middle turbinated body produce the syndrome of sphenopalatine neurosis.

#### NEW AND NONOFFICIAL REMEDIES.

Since publication of New and Non-official Remedies, 1913, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies:"

Whooping Cough Vaccine (Bordet-Gengou Bacillus).—This vaccine is prepared from the Bordet-Gengou Bacillus derived from a case of whooping cough. Sophian-Hall-Alexander Laboratories, Kansas City, Mo. (*Journal A. M. A.*, September 6, 1913, p. 771).

Electr-Hg.—A colloidal suspension of mercury equivalent to 0.1 per cent. metallic mercury rendered stable by sodium arabate. Electr-Hg is claimed to have an action similar to that of soluble salts of mercury. Injected intramuscularly, it is said not to produce pain or indurations. It is used intramuscularly, intravenously and also intraspinaly. Electr-Hg is marketed in the form of Ampules of Electr-Hg, 5 Cc., in a non-isotonized condition. The package contains a physiologic salt solution with directions for the extemporaneous isotonization of the preparation before injection. Comar and Cie, Paris, France. (*Journal A. M. A.*, September 13, 1913, p. 868).

Melubrin. — Melubrin is a sodium 1-phenyl-3,3-dimethyl-5-pyrazolon-4-amide-methan-sulphonate. It is closely related to antipyrin. Melubrin is white, almost tasteless and readily soluble in water. It is said to have almost no effect on the circulation or respiration in moderate doses, but to be a powerful antipyretic and analgesic. It is claimed to be useful in sciatica and other neuralgias and as an antipyretic in febrile affections. It is said to act similar to salicylates in acute rheumatism. Farbwerke-Hoechst Co. New York. *Jour. A. M. A.*, September 13, 1913.

Acne Bacillus Vaccine.—Each Cc. contains 50 million killed acne bacilli suspended in physiologic salt solution with 4-10 per cent. trikresol. Cutter Laboratory, Berkeley, Cal.

Coli Vaccine.—A suspension of the Bacillus coli communis in physiologic salt solution with 4-10 per cent trikresol. Containing 50 million killed Bacilli coli per Cc. Cutter Laboratory, Berkeley, Cal.

Pneumococcic Vaccine.—A suspension of mixed strains of the Diplococcus pneumoniae in physiologic salt solution with 4-10 per cent. trikresol. Containing 50 million killed pneumococci in each Cc. Cutter Laboratory, Berkeley, Cal.

Staph-Acne Vaccine.—A mixture of killed staphylococci and of killed acne bacilli in physiologic salt solution with 4-10 per cent. trikresol; each Cc. containing 500 million staphylococci and 50 million acne bacilli. Cutter Laboratory, Berkeley, Cal.

Staphylococcic Vaccine.—A suspension of the Staphylococcus aureus, albus and citreus in physiologic salt solution



with 4-10 per cent. trikresol. A suspension of various strains of staphylococci containing about 500 million to each Cc. Cutter Laboratory, Berkeley, Cal.

**Pyocyaneus Vaccine.**—A suspension of mixed strains of killed bacillus pyocyaneus, in physiologic salt solution with 4-10 per cent. trikresol, 1 Cc. containing about 50 million killed bacilli. Cutter Laboratory, Berkeley, Cal.

**Streptococcic Vaccine.**—A suspension containing each Cc. 50 million of killed streptococci in physiologic salt solution, with 4-10 per cent. trikresol. Cutter Laboratory, Berkeley, Cal.

**Typhoid Vaccine.**—A suspension of killed bacilli in physiologic salt solution with 4-10 per cent. trikresol; containing 50 million killed typhoid bacilli of various strains in each Cc. Cutter Laboratory, Berkeley, Cal.

**Typhoid Prophylactic.**—A suspension made from a single strain, viz., that employed by the United States Army. Each Cc. contains 1 billion killed typhoid bacilli. Cutter Laboratory, Berkeley, Cal. (*Journal A.M.A.*, September 13, 1913, p. 868).

**Antigonococcus Serum.**—Marketed in 10 Cc. syringes. Lederle Antitoxin Laboratories, New York City.

**Antimeningococcus Serum (Antimeningitis Serum).**—Marketed in 15 Cc. cylinders. Lederle Antitoxin Laboratories, New York City.

**Antistreptococcus Serum.**—Marketed in 50 Cc. cylinders. Lederle Antitoxin Laboratories, New York City.

**Antistreptococcus Serum, Polyvalent.**—Marketed in 10 Cc. syringes.

Lederle Antitoxin Laboratories, New York City.

**Antipneumococcus Serum.**—Marketed in 50 Cc. cylinders and in 10 Cc. syringes. Lederle Antitoxin Laboratories, New York City.

**Normal Horse Serum.**—Marketed in 10 Cc. syringes and 100 Cc. vials. Lederle Laboratories, New York City.

**Scarlet Fever Treatment.**—Marketed in four strengths in syringe packages, two vial packages and 20 Cc. vials. Lederle Antitoxin Laboratories, New York City.

**Scarlet Fever Prophylactic.**—Marketed in packages of three syringes and in packages of three vials. Lederle Antitoxin Laboratories, New York City. (*Journal A. M. A.*, September 13, 1913, p. 869).

**Anti-Typhoid Vaccine (Immunizing).**—This vaccine is prepared according to Russel from the strain used in the U. S. Army. It is marketed in three syringes and in ampules. National Vaccine and Antitoxin Institute, Washington, D. C. (*Journal A. M. A.*, September 13, 1913, p. 869).

Since Sept. 1, the following articles have been accepted for inclusion with New and Nonofficial Remedies: *Abbott Alkaloidal Co.*

Acne Bacterin, Polyvalent.

Coli Bacterin, Polyvalent.

Friedlander Bacterin, Polyvalent.

Gonococcus Bacterin, Polyvalent.

Pneumo-Bacterin, Polyvalent.

Staphylo-Albus Bacterin, Polyvalent.

Staphylo-Aureus Bacterin, Polyvalent.

Staphylo-Bacterin (Human) Albus,  
Aureus and Citreus.

Strepto-Bacterin (Human).  
Typho Bacterin, Polyvalent.  
Typhoid Prophylactic.  
Slee's Antistreptococcus Serum.  
Slee's Antimeningitis Serum.  
Slee's Normal Serum.

*Herman Barker:*

Barker's Gluten Food A.  
Barker's Gluten Food B.  
Barker's Gluten Food C.

*Farbwerk-Hoechst Co.*

Ninhydrin.  
Placentapeptone.

*Lederle Laboratorys*

Rabies Vaccine.

*Merck & Co.:*

Copper Citrate.

Having announced that the advertising claims now made by the Sophin-Hall-Alexander Laboratories will be adhered to by E. R. Squibb & Sons, the Council voted that the acceptance of the products described in the Journal of the American Association, April 5, 1913, p. 1074, April 19, 1913, p. 1227, and Sept. 6, 1913, p. 771, be allowed to stand.

## Book Reviews

*Medical and Surgical Reports of the Protestant Episcopal Church in Philadelphia.* Volume I. Press of Wm. J. Dornan, Philadelphia, 1913.

This is a most interesting and entertaining volume of 406 pages containing the detailed reports of the various

departments and services of the hospital together with a number of instructive papers based on the work done in the hospital during the year 1912.

Among the papers we may mention The Rational Treatment of Tetanus; The Treatment of Fractures of the Forearm, with Notes of the End Results of Fifty-two Cases Treated without Operation; Malignant Disease of the Lung, with Special Reference to Sarcoma and the Uncertainty in Diagnosis of Upper Abdominal Diseases and Conditions.

*The Surgical Clinics of John B. Murphy, M. D.* Volume II. Number IV. (August, 1913):

The Surgical Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago, Volume II. Number IV. (August, 1913). Octavo of 206 pages, 49 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Published Bi-Monthly. Price per year, Paper, \$8.00. Cloth, \$12.00.

The August number of Murphy's Clinics is a most excellent one. Besides the usual numbers of clinical cases there is a most instructive article on "Vaccine and Serum Therapy," being a series of observations on the subject from Doctor Murphy's clinics.

A series of splendid skiagrams of the blood supply in and around many of the important points is well worth the price of a year's subscription to the Clinics.

This number also contains a Talk on Appendicitis by Doctor Norman Bridge of Los Angeles, California, and a report of Doctor Murphy's article on the same subject representing his teaching of twenty-five years ago. M.



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WRITE TO THE MANAGER FOR DESCRIPTIVE BOOKLET.

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# The New Mexico Medical Journal

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E · D · I · T · O · R · I · A · L

*The New Mexico Medical Journal is not responsible for the opinions expressed by any of its contributors.*

**You want a larger and better journal  
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ING OUR ADVERTISERS: "I  
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FAVOR THOSE WHO FAVOR US**

The fifth annual meeting of the New Mexico Society for the Study and Prevention of Tuberculosis has passed into history. This number of the Journal is devoted to the proceedings and publication of the papers read before this meeting. It may here be fitting to review the history of the Society since its organization.

Formed at Roswell, New Mexico, in 1909, it has struggled during the past four years for a mere existence. The times are not yet ripe for a society of this nature in so new a state, yet to abandon all efforts for its betterment would be a folly. There is a crying need for such an organization and time will see to it that it is better supported.

At present its life can be maintained by annual meetings of a somewhat scientific nature and an interest at least kept burning among the members of the medical profession. Later it is hoped a united effort of both physicians and the laity will place the society on such a sound financial basis that

work of great value to the people of New Mexico may be accomplished.

As an illustration of the hardships encountered, hundreds of application cards were sent throughout the state and but a meagre six people joined. These merely through political affiliations whereby they thought it was more a duty than otherwise, and, be it said, that one dollar pays dues for one year.

Yearly the society attempts to obtain funds through the sale of Red Cross Seals. By a united effort a thousand dollars worth, at least, should be sold, and yet the high water mark reached in any year has been but little over four hundred dollars. This amount less percentage to the American Red Cross and the cost of sale leaves but a mere fraction for the use of the Tuberculosis Society.

This year we are to make another attempt, and by the time this Journal appears, Red Cross Seals will be for sale in every town of any size in New Mexico and we ask for the co-operation of every man, woman and child in the state to make this year's sale reach far in excess of any previous record.

This sale will be in the hands of the

school children, and if they are given the proper support the results should exceed all expectations.

Now, a final appeal to the members of the medical profession. It is the duty of each and every one to see to it that his name be enrolled as a member of this society. Before laying aside this copy of the Journal enclose one dollar to either the secretary or the treasurer and receive a certificate showing you a member in good standing for the year 1914.

L. S. PETERS, Secretary.

#### MEDICAL PROGRESS.

In very ancient times, when people were few only, and these usually in isolated small groups, the individuals had to attend to all their needs themselves, obtain their food, make clothing, and among other things had to render medical services to each other in case of disease and injury, as far as their limited knowledge and experience allowed. After a while, with increasing population, men took up different lines of work, producing or selling, and depended upon others for what they did not produce themselves. Then some communities produced an excess of certain articles, and exchanged with other communities for their excess of production. Some individuals became more skilled than others in the rendering of medical assistance, and devoted themselves exclusively to that. Thus specialism in all work developed. Experience increased knowledge, which was handed down to succeeding generations, from mouth to mouth or by records.

In the early days the only object of

Medicine was to give assistance, in other words, to administer treatment. Ancient religions had hygienic teachings embodied in them, and the Egyptians embalmed their dead, but the earliest known strictly medical writing, the Papyrus Ebers, dealt almost exclusively with treatment, and contained a great many complicated prescriptions. It is thought that it was written about 1550 B. C.

By the time of Hippocrates Medicine had already made great strides, as his writings show a remarkable knowledge of the subject for so early a period, about 400 B. C. But progress was slow. Galen did much by stimulating anatomical study, but the most important advance was the first post-mortem examination. This latter step had for years been delayed by religious beliefs, and we of today, in many instances, still have to contend against the idea that doing a post-mortem examination is showing a lack of respect for the dead.

The Renaissance of the Middle Ages was truly an awakening, but was more one of Philosophy, Literature and Art than of Science, although the latter was much advanced. The real Renaissance of Science and Medicine has been in the past one hundred years, and the advancement is so rapid now that it is impossible to keep up with it. This will, without doubt, continue more rapidly than ever before.

Medicine is, and always will be, constructive; the elimination of incorrect ideas that have been handed down to us is of such a nature. We realize this fully when we become familiar with the present condition of primitive

peoples. We see a plenty of this in our contact with ignorant negroes and peons. How many, even among the educated, wear charms to ward off evil spirits and diseases, or to cure their ails? The only destructive agents at work are the petty isms, ignorant and dishonest public and legislators and charlatans. The former two, misguided, can at worst only impede the inevitable advance of Science; the first have some dogmatic belief and cannot see beyond it; and the latter are not even worthy of comment.

Some physicians believe that there is a Vienna School, Berlin School, London School or the School of some great authority, etc.; the word "school" being here applied in its broader meaning. This is a mistake, as there is but one school, that of Scientific Medicine, which uses all that is known today for medical purposes. Science knows no School or Place—or Man.

As with the Science and Art of Medicine, the physician himself must advance, and if he fails to do so he must deteriorate, at least relatively, as otherwise he is left behind the others. He would most always actually deteriorate also, as failure to advance means loss of scientific ambition. His ideals must be high, not only those governing his personal and professional conduct, but his scientific as well. He must do more than read only what he needs for the proper management of the case in hand, and must try to keep abreast of the times. Attend society meetings and, if possible, do experimental work or original research. All advancement in science is made by individuals. Some of the greatest discoveries in Medicine

have been made by clinicians residing in country districts.

Much can be expected of laboratories of investigation and commissions of experts working in the field. The wealthy deserve a great deal of credit for the liberal endowments which they have made for purposes of medical research.

Medicine owes much to other sciences, especially to chemistry and bacteriology. These are yet in their early days, and must in the future be more carefully studied by physicians than they are at present. The greatest discoveries in treatment will be made in these two branches.

A good medical journal, the official organ of a state society, should do more than publish the transactions of the annual meetings and the meetings of the constituent societies; it must stand for the advancement of Science in general and Medicine in particular, and the ideals of the Profession and its individual component, the Physician. It means Progress. This has always been, and always will be, the policy of this Journal.

E. C. P.

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The officers of the New Mexico Society for the Study and Prevention of Tuberculosis are as follows:

President, Dr. A. G. Shortle, Albuquerque.

Vice-President, Dr. F. E. Mera, Santa Fe.

Secretary, Dr. L. S. Peters, Albuquerque.

Treasurer, Dr. R. E. McBride, Las Cruces.



## Original Articles

### ARTIFICIAL PNEUMO THORAX

A. G. SHORTLE, M. D.

ALBUQUERQUE, N. M.

*Address of the President of the New Mexico Society for the Study and Prevention of Tuberculosis..*

Read before the joint meeting of the New Mexico Medical Society and the New Mexico Society for the Study and Prevention of Tuberculosis, Albuquerque, N. M., October 4th, 1913.

One year ago I had the pleasure of presenting in a talk before this society my results with the use of Artificial Pneumo-thorax in the treatment of tuberculosis of the lungs. A number of excellent papers have been written during that time in America on the subject, and while my experience with the procedure is as extended as that of any but of perhaps a half dozen Americans, I have hesitated about putting it into writing, since a year and a half in the therapeutics of tuberculosis always seems rather a brief period. However the procedure as revised is still on trial, and only the results of numerous cases in the hands of various operators will decide for us its true worth.

Artificial Pneumo-thorax labors under the handicap of having an unfortunate past, and many of the medical profession appear to find it hard to realize that the procedure as used today is quite a different operation from that of Murphy of fifteen years ago, and, consequently, will not give it the serious consideration that is its due. On this account, I will review the history of the operation briefly.

Carson, an English physician, ap-

pears to have suggested this treatment for phthisis in 1842, but did not carry it out, and, as Balboni remarks, it would certainly have ended disastrously if he had, as that was long before the days of aseptic surgery.

To Forlanini, of Pavia, belongs the credit of first actually carrying out this procedure.

Between 1882 and 1894, he made numerous experiments both on the human and on animals, using at first various liquids, then changed to the gases, oxygen first, later on air, and at last nitrogen, the last named gas not absorbing so readily as the other two. In 1894, in the Munchener Med. Wochenschrift, he first published his results.

In 1898, at the Denver meeting of the A. M. A., Dr. J. B. Murphy reported five cases treated by this means, and soon after the procedure enjoyed a short lived popularity in this country, but only short lived, as a number of reports from different operators came in showing unfavorable results, ranging all the way from slight emphysemas to fatal air embolism.

Murphy himself then abandoned the operation, partially through the death of Dr. A. F. Lemke, who carried out the work for him, but partially, no doubt, through poor results.

Forlanini appears also to have largely dropped the procedure he had devised until stimulated to further efforts by Brauer since he contributed nothing to the literature of the subject between 1894 and 1906.

To Prof. Rudolph Brauer, of Marbourg, is largely due the credit of the revival and later development of the operation. His first paper on the subject was in 1904, but in 1911 he was able to report on 102 cases.

Cristopher Saugman has done much

to simplify the operation and make it more safe. His invention of the monometer being probably the one greatest step forward.

Schmidt, Lucius Spengler, Sampson, Schriber and many others have made contributions to the literature of the subject.

In America, the operation has been revived largely through the work of Doctors Robinson and Floyd and Mary E. Lappman. W. A. Goekler, L. Hamman and M. A. Sloan, Gerardo M. Balboni, King and numerous others have taken it up more recently.

Robinson and Floyd first operated in September 1910 and in April 1912, in a model article, in the Archives of Internal Medicine, they reported 28 cases. Dr. Mary Lapman reported 30 cases at the 1912 meeting of the American Medical Association.

Were it not for published reports of shock, serious emphysema and even one recently reported case of fatal gas embolism, (3), I would feel it unnecessary to describe the technique of this comparatively simple operation.

I have now operated over three hundred times and have never had shock or any other untoward symptom except that in three or four instances, I had slight emphysemas of the tissues of the chest wall, and in one instance the gas (only 200 c. c.) followed up the trachea to the tissues of the neck. These symptoms soon disappeared and resulted in nothing more serious than temporary inconvenience. I may be wrong, but I am inclined to believe that such unfortunate results as are reported come from faulty technic and can be at least largely avoided. In the matter of apparatus alone I have seen

at least two in use that I should not care to use with any case of mine, one not having even a monometer.

The apparatus I use is that of Robinson and Floyd, of Boston, (4), which they have evolved by a process of elimination and by combining the best qualities of the different instruments in use. The needle as improved by them is to be specially recommended, and I can hardly believe it possible with even ordinary care to produce a gas embolism if this needle is used.

The selection of the point for introducing the needle is simple if there has been no pleuritic adhesion. The lower part of the axillary space on the left or on the right side of the same space of the anterior thorax are probably to be preferred. If dullness on percussion is made out here, or there are signs of a superficial large cavity, it is well to choose another spot.

I have found careful examination of the diaphragm margins of the lung for excursion up and down during respiration to be of some value in looking for adhesion.

The position of the patient is important. One should have them lie with several pillows under their chest and without any at their head and the arm on that side extended, in such a manner as to stretch the ribs apart at the point of injection.

Next the skin is washed with gasoline and then painted with iodine. Thoroughly anæsthetize the part selected with 2 per cent novacaine being sure to reach the parietal pleura, for I think most of the cases reported of shock are due to pleural reflexes, and can be avoided by careful anesthesia.

With a small two edged knife make

a small incision down and through the internal intercostals in an oblique direction. The large special needle is then forced slowly through the pleura, the oblique edge of which is held so as to strike the opposite pleura with the blunt end.

The stylette should now be removed, the needle cock closed and the needle connected with the tube leading to the monometer. If one has rightly judged, and the needle point is in the pleural cavity, one is assured by finding a marked negative pressure recorded and an excursion up and down with ecali respiration.

King has rightly said: "The monometer is the key to the whole situation, and the only device which has made artificial pneumo-thorax practicable as a therapeutic measure." (5). Upon the correct interpretation of the reading depends the safety of the operation. If one never introduces the gas till he has both a negative pressure and marked oscillations recorded, I think there is little danger in the operation.

I broke this rule on one occasion, injecting the gas when there was quite marked oscillations in the monometer but the pressure was neutral, and the result was the worst emphysematous condition I have had in any case. If you have missed the pleural space either there is no movement, or very little, and one must try till he succeeds. If you have been so unfortunate as to enter at a point where there is a pleuritic adhesion, you must select another place and try for a clear space. According to Gekler, (6), twenty-five per cent will be found to be inoperable on account of extensive adhesions. This accords with my own experience.

Being assured that you have your needle rightly placed, the monometer is shut off and the nitrogen turned on. I always stop and try my monometer once or twice more during the operation for fear I may have moved the needle.

The amount of gas used depends upon the pleural space. If this seems free and the gas causes no discomfort, and your monometer shows a fairly marked negative pressure as much as 600 c. c. may be given the first time. If pain is complained of, it is well to cease at any time. I was only able to introduce 150 c. c. in one case, and my average is perhaps 300 to 400 c. c. Three days to a week later a slightly increased amount may be used and by increasing the dose and the interval for giving it, one may reach 1,000 c. c. or more at intervals of weeks or even a month, though recently I seldom give more than 600 c. c., preferring to operate more often and give smaller doses.

The first operation having been successful, the succeeding ones are quite simple as you have a large pleuritic space to enter, and at such times I use an ordinary coarse aspirating needle as it makes a smaller scar.

In considering the "Rationale" of this procedure, or the reasons why we should expect good results from the operation, the one coming first to mind is that of rest.

We, of course, use the nitrogen for its mechanical effect only, its placing the operated lung at rest, just as a splint puts a tuberculosis knee at rest. Rest is really more desirable in the pulmonary trouble than in the so-called surgical types, for it is easy to shield the diseased joint from more than occasional



motion, while the lung is expanding and contracting sixteen to twenty-two times a minute normally, not only by day but by night. Formerly the best we could do was to order as much bodily rest as possible, resulting in a slight comparative rest for the lung.

This rest is not only beneficial through promoting healing, but it also lessens the absorption of toxins, for we know that the flow of lymph from the lungs to the bronchial glands is greatly accelerated by the respiratory movements of the lungs. With collapse this flow of lymph bearing with it the toxins is greatly reduced, for Shingu has shown by animal experimentation that there is a lymphatic stasis produced. No doubt the better drainage of cavities and the collapsing allowing closer apposition of their walls, are also factors in the good results of this treatment.

Considerable has been written on the probable effect produced on the circulation of the blood in the collapsed lung, but as so far it is largely theoretical and as the views expressed are divergent, I will not enter upon the subject.

The lessened cough and expectoration also go to lessen the danger of extension, such as into the intestines and throat, or by aspiration into uninfected parts of the lungs.

Perhaps the greatest determining factor in the success or failure of this procedure, and one which will require years of experience and of close observation before one will be proficient, is that of the selection of cases. Unfortunately no hard and fast set of rules may be set down for the beginner.

It is to be remembered first that the chief object that we have in view is

to provide rest for the badly diseased lung. Of necessity, this means more work for the good lung, so we must first decide whether or not we think the better lung can be trusted to assume the additional amount of work.

Slight involvement of the so-called good lung, however, does not of necessity preclude the operation in all cases. In fact, in a number of my most successful cases, the uncollapsed lungs were rather extensively involved. Indeed, in these cases the working lungs steadily improved, but as I will note later this does not always hold good. Balboni (7) states that apical lesions are less dangerous than those situated centrally. From my own experience I would say that those at the base are most to be feared.

Some one is going to ask on what theory in these bilateral cases, I can explain the improvement in the uncollapsed lung since it is working harder while the collapsed lung is at rest. The usual explanation given is that the lessened toxemia and improved condition in general of the patient goes to neutralize the effects of this overwork, but I think we can go further and say that, paradoxical as it may seem, it is conceivable that where rest is indicated in the active acute condition of one lung, exercise may be beneficial in the subacute condition of the one least involved.

Kuhn, (8), in a recent article, takes the ground that dependent upon the degree of activity, temperature, etc., a lung should be treated either by absolute rest as in compression by induced pneumo-thorax, or conversely kept actively mobile, as by using the aspiration mask, and that any half way meas-

ure between these two extremes is useless and even harmful, that the lung should be either squeezed tight or expanded to its greatest capacity.

In pneumo-thorax, we really produce both conditions in the same case. Whatever the explanation may be, I know that the working lung does often improve, and this is the experience of every operator I know.

Brauer has warned us that severe tuberculosis infections of other organs is a contra-indication, such as tuberculosis enteritis, nephritis or laryngitis.

Among my cases, I treated two who had intestinal involvement. One did well, the other was apparently harmed by it, for though the latter's cough, sputum and temperature showed the usual improvement, his bowels became progressively worse. As he was a hopeless case, I thought the experiment justifiable.

There has been great diversity of opinion in regard to the amount of pressure that should be used, ranging all the way from just enough gas to relieve symptoms." (9) to pressure so great as to almost obliterate monomiter oscillations as used by one American. Individually I feel that Dr. Morgan is a bit over cautious, while extreme pressure is certainly dangerous. I usually require four or five administrations to reach neutral and after that as a rule use just a slight positive pressure.

From my own experience, I should give the following rules for selection of cases:

Any case having one good lung, or one that is comparatively so, and

(a). Having the opposite lung extensively involved, particularly if there is cavity formation, or

(b). Having the opposite lung only moderately involved but getting progressively worse and not responding to the usual modes of treatment, or

(c). Having improved under the usual methods of treatment they have come to a standstill or show signs of relapsing, or

(d). Having a moderate involvement the patient on account of finances could not afford the usual long lay off from work necessary to cure. (Balboni, Chitty and others have reported good results among patients treated while earning a livelihood). or

(e). Having severe or recurrent hemoptysis.

Doubtful cases would be those coming under one of the above classifications, but where the collapsed lung was so extensively involved as to cause doubt as to its ability to stand up under the work, and all cases that would be otherwise suitable, but rendered doubtful as complications such as tuberculous enteritis, laryngitis, nephritis, etc., or organic heart trouble.

Under the heading of "doubtful" might also be placed spontaneous pneumo-thorax and bronchi-ectasis.

Forlanini has given the following rules for the selection of cases.

1. Uncomplicated cases of slow or sub acute course, and with pleura free from adhesions, regardless of the degree of lesion.

2. The same with such adhesions as may be removed by artificial pneumo-thorax.

3. Bilateral phthisis not running an acute course and with lesions on both sides not far advanced.

There have not been a great many of these cases come to autopsy, but

Gleckler (10) says "One is struck by the amount of connective tissue formation in the lung as compared to other tuberculous cases" and "There is no noticeable hypertrophy of the right heart."

Forlanini in the microscopical study of these cases notes first atelectasis, second, an extraordinary tendency to the formation of connective tissue, and formation of hard masses about the bronchi, large vessels and in the pneumonic foci, third, the formation of a capsule about the old tuberculous foci and a tendency to cicatrize finally and very few recent tuberculous foci were visible, and these contained very few tubercle bacilli and there were no giant cells.

## RESULTS.

I have attempted to operate in 37 cases. Nine, or 24%, of these were inoperable on account of extensive adhesions, five could be only very slightly collapsed, two were for spontaneous pneumo-thorax, and one was compelled to return east after only one injection, and one was induced by others to leave off the treatment after only one injection. There were three of the five cases that allowed slight collapse that I have counted in my table of results as in these three there was enough collapse to show some influence on the symptoms, so altogether we have twenty-two cases.

All of these twenty-two were far advanced except two, these two were moderately advanced, all but two were progressive cases, some running temperature as high as 104. One had mitral obstructive trouble, two had tuberculosis of the bowel, one had nephri-

tis, one tuberculous pericarditis, two tuberculous laryngitis, twenty were bilateral cases, in fact, for most it was simply the last chance. It was either try the operation or buy a ticket home.

Of these twenty-two, fourteen are greatly improved, a number of them symptomatically cured, six are unimproved, two worse. One of these classed as "worse" being dead, this being the only fatal case of the twenty-two that I am aware of. This case had improved symptomatically but after some months' treatment developed a hemorrhage from the uncollapsed lung and soon after symptoms of meningitis and died. His case was complicated by lues and both lungs were extensively involved.

There is only one case that I think might possibly have been better had I not used the gas. This man, a physician, improved at first but soon after began to lose ground, and I discontinued the treatment, and the last I heard of him he was doing poorly.

Of the six reported unimproved, all were hopeless cases any way and certainly no harm was done, while I feel that nearly all of the fourteen marked "improved" would have died without this treatment.

Five of my cases had pleurisy with effusion during the course of treatment. All of these have done well.

I have treated only two cases for hemorrhage, both of them severe cases that threatened to end fatally. In one I got a good collapse with instant cessation of the bleeding, in the others the adhesions were so extensive that I could only get partial collapse and the patient died.

Two developed more activity in the



uncollapsed lung and I discontinued the treatment.

In conclusion I will say that after a year and a half's experience with induced pneumo-thorax, I have more confidence in its worth than ever before, and in the future I expect to try it on almost every unfavorable case after other means have failed for I think it by far the most valuable therapeutic measure we have in the treatment of pulmonary tuberculosis.

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### HODGKIN'S DISEASE AND ITS RELATION TO TUBERCULOSIS

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In 1832 the Englishman, Hodgkin, pathologist at Guy's Hospital, reported seven cases, the chief characteristics of which were progressive swelling of the lymphatic glands with coexistent splenic tumor, progressive anemia and cachexia. He gave no critical analysis of these cases and curiously does not describe their macroscopical pathology, and it is difficult to say, owing to the technique of examination at that time, whether or not these seven cases represented a clinical entity.

Cohnheim in 1865 introduced the term "pseudoleukemia" into medical nomenclature. Although Cohnheim's statement was based largely on one postmortem, in the lymphatic glands of which he found the microscopical picture of lymphatic leukemia, but with no change in the circulating blood, the condition since described by others as "aleukemia;" yet, in disregard of this statement, the term "pseudoleukemia" came to be applied rather loosely to cases of progressive glandular enlargement with no change in the blood picture. In recent literature, such cases as described by Cohnheim seem to be comparatively rare. At present, the idea of investigators is that in leukemia the blood picture may be tardy in its appearance, and may never assume large proportions—that is, the leukocyte count may never be large, but that in all cases it does appear. Reed very properly says, in speaking of Hodgkin's disease: "Different writers, impressed by some one feature of the disease, have confused the little knowledge we have by describing similar cases under different names." We

have, for example, progressive multiple lymph gland hypertrophy, lymphosarcoma, malignant lymphoma, etc., etc.

In 1898 Sternberg reported thirteen cases with rather vague clinical histories, but with a definite microscopical pathology—this pathology differing markedly from that of lymphatic leukemia and from the pseudoleukemia of Cohnheim. In Sternberg's opinion, this enlargement of the lymphatic glands was due to the tubercle bacillus and the disease a peculiar form of tuberculosis. Sternberg's opinion had many opponents, who based their opposition largely on the negative animal experiments and in 1904 and 1909 Sternberg himself publicly said that his former statements had been too comprehensive, and that, although he believed that many of the cases classed as Hodgkin's disease were produced by the tubercle bacillus, perhaps some of them were not, but of unknown etiology. I think we can safely say that at the present time there is a tendency to return to the Sternberg conception—at least the tendency at the present time is to say that Hodgkin's disease is a specific inflammatory disease attacking exclusively the lymphatic system, leading finally to almost universal enlargement of the lymphatic glands, accompanied by anemia, cachexia and fever.

As to the exact nature of the excitant of this disease, we cannot as yet definitely say. Considerable stimulation to the work on etiology has been given in recent years by new methods of concentrating tissue and of staining organisms in tissue. Chief among these methods is the antiformin method of Uhlenhuth with its many modifications.

The first report of examinations made in this way was made by Eugen Fränkel and Hans Much, who reported ten cases of Hodgkin's disease, in nine of which they were able to demonstrate, by means of the antiformin method, an antiformin fast Gram-staining, granular bacillus which they considered as identical with the granular form of tubercle bacillus first stained and described by Much. Fränkel later reported seventeen cases, in sixteen of which he was able to demonstrate the same organism. Löffelmann reported seven cases in which he was able by this method to demonstrate in every case granular Gram positive bacilli, and in six of his cases he was able to stain tubercle bacilli according to Ziehl. In this respect Löffelmann appears to stand alone, since in other instances coming to my notice at least, the finding of Ziehl staining bacilli has been impossible. His natural conclusion is that Hodgkin's disease is not produced by an organism similar to tuberculosis, but by tubercle bacilli.

It is interesting to note, in this connection, that in the thirteen cases reported by Sternberg, ordinary caseating tuberculosis was found in eight, while in the seventeen cases reported by Fränkel such a condition was found in but one case. In the cases reported by Löffelmann, four came to post-mortem, and in three no trace of ordinary tuberculosis could be found macroscopically or microscopically.

Later, Much in a comprehensive review of the entire subject, reports twenty-one cases, fifteen of which came to post-mortem. In practically all of these cases he was able by means of the anti-

formin method and Gram stain to demonstrate forms which morphologically and biochemically were identical with the granular form of tubercle bacillus first discovered and stained by himself. In his animal experiments, where he employed postmortem material, the results were negative in every instance, but in three cases where he used freshly extirpated glands not treated by antiformin, he produced in Guinea pigs fibrotic tuberculosis. This tuberculosis, if tuberculosis it was, had little or no tendency to progress and cause the death of the animal; neither did it show any tendency to caseation. From these fibrotic tubercles he was able to secure again the granular bacilli.

In this connection it is important to note the work of Neumann and Matson on sputum. They report a number of cases of pulmonary tuberculosis in which no bacilli could be demonstrated by ordinary methods, but if the sputum be concentrated—preferably by the Ellermann-Erlandsen method—and stained by the Much-Weiss method, they were able to demonstrate granular types of tubercle bacilli. These bacilli were virulent for Guinea pigs, but slightly resistant to antiformin, so that inoculations of anti-formin-treated sputum produced no tuberculosis, while the same sputum untreated did produce tuberculosis.

Kurt Beumelburg reported five cases that histologically showed the typical picture of Hodgkin's disease in which after treating the tissue by anti-formin and in some cases by staining the tissue direct by Gram, these granular types could be shown. In all these cases, histologically, no trace of ordinary tuberculosis could be found.

From these reports, which are all recent, it seems certain that by proper technique there can be found, in most cases of Hodgkin's disease, organisms which in every respect correspond to the granular form of tubercle bacilli. Bunting and Yates report that in three cases of Hodgkin's they have secured a pure culture of a pleomorphic, diphtheroid organism. Negri and Mieremet have cultivated the organism from two cases. This organism appears very similar to that described by the other authors, and in their opinion it is identical with the one first described by Frankel and Much.

Before reporting in detail one case recently under observation, I wish to mention briefly the symptomatology as described in full by Zeigler and others. The first indication of trouble in fifty per cent of the cases is an enlargement of the lymphatic glands in the posterior triangle of the neck, practically always unilateral. In the remaining fifty per cent some other group is first involved. This primary manifestation serves to differentiate the disease from leukemia or the pseudoleukemia of Cohnheim, since in those diseases the lymphatic enlargement is ordinarily a general one. This primary enlargement is at first soft. The glands do not become adherent to the skin; they never break down unless opportunity is given for some secondary infection. They may remain unchanged for months and even many years. Sooner or later other glands become involved, and the patient enters on what might be termed the secondary stage of the disease. Finally, late in the trouble, practically all groups of glands are involved. The first group involved may become small-



er and generally becomes much harder than when first noted. Splenic tumor is present in sixty-five to seventy per cent of the cases, but never attains the size of a leukemic spleen. A most important clinical sign is the fever—an irregular, remittent fever. Few cases are free from elevation of temperature.

Many authors have called attention to certain skin manifestations described variously as mere itching, certain purigo-like manifestations, and in some cases multiple skin tumors. Examination of the blood gives but little help, except that a secondary anemia is shown. Urine, feces and sputum, eye grounds, give no assistance except to exclude other troubles. The loss of weight and strength become more evident, cachexia more pronounced and the prognosis is unfavorable in every well-defined case.

To go into the pathology, either gross or microscopic, in detail is far beyond the limits of this paper. Suffice it to say the characteristic macroscopic changes are found most prominently in the glands themselves and in the spleen. The microscopic picture is absolutely different from that of leukemia, lymphosarcoma or ordinary tuberculosis. The general picture is that of an increase in fibrous tissue, and the whole suggests a chronic inflammatory process.

In conclusion, I wish to report in detail one case recently under observation. R. A., M., 25, farmer, entered the Modern Woodmen Sanatorium, March 10, 1913, with the following history: In December, 1911, the patient noticed an enlargement on the left side of the neck. It gave him slight pain, and he applied some home reme-

dies and did not consult a physician. During the following Spring—that is the Spring of 1912—he did not feel as well as usual; noticed the skin was dry and itchy. Several times during the summer he suffered from what was apparently, urticaria. He had his first night sweats in November or December, 1912. He thinks he had fever during the summer, but does not know positively. He had some cough late in the summer of 1912, which persisted until he came to the institution. He was able to work until January 1, 1913; consulted a physician February 1, 1913 and, on account of the fever and loss of weight, was sent to the Sanatorium. Examination at that time showed a patient 6 feet 2 inches, weight 147, usual weight 170. Over the upper part of the arms, on the chest and on the upper part of the back are pigmented areas showing marks of scratching and occasionally a few flat-topped elevated papules. On the outer surface of the left leg is found a very superficial ulcer, size of a half dollar. This area also shows signs of scratching. On the left side of the neck, extending from the level of the mastoid process to the clavicle is a mass of discrete enlarged glands. These are not adherent to the skin, are moderately hard, very slightly tender to pressure. On the right side in the same area, are a number of palpable but not especially large glands. The inguinal glands are palpable but show no special enlargement. The heart is apparently normal. The second aortic is plus. Over the second right intercostal space are heard a few friction sounds, otherwise lungs are negative. Liver dullness extends

from the sixth rib to below the costal border. The spleen is definitely palpable one finger's breadth below the costal border. Temperature ranges from 98 to 102. Urine shows trace of serum albumen, no sugar, no casts. Blood examination shows hemoglobin 75%, red blood cells 3,800,000, leucocytes 11,840, P. M. N. 70%, L. M. 1%, L. 20%, Eo, none, pathological forms none. On Mar. 16, 5 cc. of blood was withdrawn from a vein and injected into the abdomen of a Guinea pig. This pig has remained well. On March 13th Wasserman negative. The Wasserman was tried again on June 3rd and was also negative. One-half mg. O. T. subcutaneously gave doubtful local reaction. Following his admission repeated blood examinations were made which differed in no essential detail from the first examination, excepting that on one occasion a few myelocytes were observed. On August 30th, under local anesthesia, one of the glands from the left side of the neck was removed. A section was sent to a pathologist, who made the following report: "Sections from lymph gland reveal masses of small, round cells, separated by thick bands of fibrous connective-tissue. There is absence of lymph follicles and of the lymph sinuses. The whole presents the appearance of a productive inflammation, characterized by the formation of a fibrous connective-tissue."

A portion of this gland was treated with 15% antiformin, another portion macerated with normal salt. Each of these was injected into the abdominal cavity of a Guinea pig. Other portions of this gland treated with 15% antiformin for twenty-four hours, the sediment after centrifuging stained by

Gram, or by the modified Gram of Much-Weiss, showed in every instance a granular type of organism which in many cases seems to be more like a coccus than a bacillus. These organisms are difficult to recognize. The impression is at first that one is dealing with an artifact. In but few instances were we able to stain the bodies of the organisms. The granules in every case stand out clearly. Much experimental work is needed before we can say that this antiformin fast Gram positive organism is the cause of Hodgkin's disease. So far as its morphology has been worked out it corresponds exactly with the granular type of tubercle bacillus.

The patient left the institution September 30th. The temperature during the entire stay showed the typical remittent character. The only change in physical findings was an enlargement of the glands in the right axilla with probable involvement of the mediastinal group. The time is as yet too short to make any report on the animal experiments.

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### SOME OBSERVATIONS ON ALTITUDE.

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Read before the joint meeting of the New Mexico Medical Society and the New Mexico Society for the Study and Prevention of Tuberculosis, Albuquerque, N. M., October 4th, 1913.

The practical consideration of high altitudes brings up the questions of the class of cases in which it is indicated and in which it is contraindicated.

We are all familiar with the effects noticed in the blood of the increase of hemoglobin; in the increase in the red cells, which seems to be proved to be an actual rather than a relative increase as so many have maintained; and also the increase in the lymphocytes, which Webb and others have demonstrated. He has maintained that the resulting phagocytosis accounts for the immunity enjoyed by residents of high altitudes against tubercular infection, and for the better chance one already infected has for overcoming the invasion of the bacilli. While we can only surmise how much this theory accounts for, it seems reasonable to suppose that the increase of lymphocytes is one of the favorable conditions brought about by a change to a higher elevation. The question of blood pressure has re-

cently been under discussion. It was generally accepted that the blood pressure was lowered until Peters published his observations. Knowing of the experiments of Gardener and Hoagland in Colorado Springs, and the general accepted opinion, the first report of Peters came as a surprise, especially as the low percentage of hemorrhage cases in a high altitude seemed to be accounted for on the theory of a lowered blood pressure. Two years ago I took a small series of cases and found the pressure to have averaged 133 mm in the first stage; 123 mm in the second stage, and 114 mm in the third stage. This series comprised only twenty cases four of which were first stage, six were second stage, and ten were third stage. Sometime later I took a separate series of sixty-five cases for I wished to see the difference between the averages in the small series of twenty and the one of sixty-five. Of the second series five were incipient and averaged 130 mm; fourteen were moderately advanced and the pressure averaged 122 mm. The remaining forty-six were third stage cases with an average pressure of 120 mm. The incipient cases were so few that the recorded pressures are practically valueless, although nearly agreeing. The average for the second stage cases was about the same in both series, 123 mm in the first, and 122 mm in the second series. There was a greater difference between third stage cases of the two series, being 114 mm. in the first, comprising ten cases, and 120 in the second, comprising forty-six cases, showing that to be of value, a large number of cases must be used. Pottenger reports averages to only 108 mm. in



the first and second stages and 103 mm. in the third stage. Rittman' and Thayer's cases averaged somewhat lower. My observations were taken at an altitude of seven thousand feet, and no cases included where a high pressure could be traced to degenerative changes of the kidney or to arterio sclerosis. They were all taken within two days of arrival and later would have averaged more. In themselves these figures are inadequate to prove that blood pressure is increased in a high altitude, yet they add proof to the extensive work that has already been done. I have not noticed that the pressure was lowered on first ascending to an altitude but it seems to be higher a few days after.

Probably one of the most important effects noticed is that proteid matter is assimilated in greater amounts than at sea level. This may aid in the more rapid repair of damaged tissue.

We cannot account for all these phenomena by mechanical causes, and it seems reasonable to believe in the theory that in some complex way, stimuli acting on the various functions, arouse them to greater activity and increase to a marked degree, the efficiency in general, of the human machine. This improvement in tone of the system manifests itself in an improved appetite, sound sleep, and a feeling usually of exhilaration. Sometimes a bowel that has been relaxed for years will empty itself regularly without the usual aid of laxatives, and it is the rule for night sweats to stop in a day or two after reaching an altitude. The psychic effect of a change of environment cannot account for all the changes noticed.

While altitude does not act in this beneficent way, there is no doubt but that a greater strain is put on the heart. However, one often sees a damaged heart with good compensation, which even in extreme altitudes shows no untoward symptoms.

In considering the cases in which a high altitude is indicated, I will quote from a recent text book the author's indications for high altitude: (1) Incipient cases with or without fever. (2) Cases beyond the incipient stage with infiltration or beginning destruction. (3) Cases with early hemoptyses or laryngeal cases. (4) Cases with plurisy of old pleuritic exudate. This may be said to reflect the general opinion on the subject of altitudes, but it is based on the cases which the author thinks can ascend to an altitude without harm rather than cases in which altitude will prove the most valuable adjunct in the treatment. If it is true that this tonic action is felt in an altitude, it is not only the early cases in which it is applicable, but also in the later cases, where it is almost a necessity. In other diseases the more active the symptoms, the more active are measures used to combat the condition, but many physicians particularly of the west, consider active symptoms and particularly a rapid pulse, as an indication for a low altitude instead of proper treatment in high altitudes. This had been my attitude until some years ago I began to realize that the cases I had advised to go to a low altitude did not improve as I had hoped. Since then I have had better success by keeping the patient if the pulse did not run usually above 130, at absolute rest and giving him the benefit of the altitude.

Of course very moderate success is all we can expect in cases of this kind, but it is such a satisfaction to have the few do well that we can feel encouraged. Just as this action of the altitude can overcome the action of the toxins on the vasodilators and increase the blood pressure, and can increase the pressure and still lessen the tendency to hemorrhage, probably by stimulating the growth of fibrous tissue so it can also at least help the heart to stand the extra work put upon it. However, proper supervision and control are more necessary than at sea level, for like other useful remedies, altitude must be used with care, or it may prove to be a dangerous weapon.

One of the greatest indications for a high altitude in my opinion, is a rapid breaking down of tissue. It is in this class of cases that we see the most brilliant results. This seems to apply even to a softening occurring with secondary bacteria, if it has not proceeded so far that the patient is left utterly weakened by the toxemia. In these cases I have seen greater differences in the results at high and low altitudes than in the slow fibroid types, which often do exceedingly well in the low warm regions. Since hemorrhages are so infrequent in the high altitudes, the indications are obvious for cases having this complication. The old idea that laryngeal cases do better in low altitudes is fast passing away. At one time, before the days of the sanatoria in the west, a mining camp in Colorado with an altitude of almost 9,000 feet, had quite a reputation for curing laryngeal tuberculosis. I knew several cases which made remarkable progress there one summer without local treat-

ment of any kind. Certainly a high altitude with proper treatment produces most happy results.

The contra indications for a high altitude are organic disease of heart or kidney and fibroid cases with little lung capacity. I do not consider it is contraindicated for a nervous patient. Of course moribund cases should never be sent from home, particularly on a long journey, the fatigue from which should often be blamed for unpleasant results rather than the altitude. Much depends on the treatment a patient receives after arrival, whether the altitude will prove of benefit or the reverse. By a high altitude an elevation above three thousand feet is meant. Personally I prefer higher altitudes, but good effects are noticed in very moderate elevations.

I do not mean in this paper to advocate the sending of only advanced cases to high altitudes, for no case can be too early to disregard every possible measure that can be used. In looking over the reliable data one finds that between twenty and thirty per cent more incipient cases and that over one hundred per cent more second stage cases are discharged from the western sanatoria as apparently cured, than from the eastern institutions. We cannot regulate to a very large degree the patients that are sent to us, for physical diagnosis is often so little understood that many a physician unfortunately for us, sends advanced case thinking they are in the incipient stage. Advanced cases will be sent to us in the future as in the past, and we must decide whether they shall be kept in an altitude or sent to the lowlands. With proper treatment we can have surpris-

ing success with many of these, and make the altitude a benefit rather than a danger. It is not a pleasant thing to be the forlorn hope in the battle against tuberculosis, but it is a position that is forced upon us, and one which we must accept.

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### THE MEDICAL PROFESSION IN ITS RELATION TO THE TUBERCULOSIS PROBLEM.

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By JOHN W. FLINN, M. D.

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Read before the joint meeting of the New Mexico Medical Society and the New Mexico Society for the Study and Prevention of Tuberculosis, Albuquerque, N. M., October 4th, 1913.

Those who have made a special study of vital statistics have estimated that there are five hundred thousand persons in the United States constantly affected with manifest tuberculosis; and that one-fourteenth of all deaths in this country are caused by this disease.

As practically every one of these five hundred thousand consults a physician at least spasmodically, and quite a large proportion is under the constant care of physicians, it is evident that tuberculosis constitutes quite a large percentage of all cases treated by the physicians of every state. There is probably no other chronic disease of which the physicians of this country see so many cases.

Since tuberculosis is so prevalent among all classes in every state of the Union, one would naturally expect to find the medical profession especially well qualified to diagnose and treat this disease.

Perhaps no other class of medical practitioners has the same opportunities of determining just how well tuberculosis is diagnosed and treated by the physicians of all parts of the United States, as have those who practice in the so-called health-resort towns of the Southwest. Here tuberculous patients from practically every city, town, village and hamlet of this country congregate, and are only too willing to describe in detail the methods of treatment followed by their home physicians. Making every allowance for inaccuracy in these statements and for the strong desire of some patients to "knock" their former physicians, it soon becomes evident that the great majority of tuberculous patients, who come to the Southwest have been badly advised by their home physicians. And one is justified in concluding that those patients who remain at home receive the same kind of medical advice. A number of years' experience in treating tuberculous patients from all parts of this country forces one to the conclusion that there is probably no other prevalent chronic disease, the early diagnosis and proper treatment of which are so shamefully neglected by the bulk of the medical profession of the United States.

While the spectacle of patients in the far advanced stage of tuberculosis sent west by their physicians "to rough it on a ranch," with the assurance that they have "only a little bronchial trouble" or "only a stomach cough" which "a month or two" of desert air will cure, is not nearly so common now as it was ten or fifteen years ago, still one is constantly meeting patients whose true condition as been grossly misrepresented to them and who have been



advised to climb hills, when they should be confined strictly to bed.

The important questions are "Why are so many physicians not properly qualified to diagnose and treat tuberculosis?" and "What can be done to remedy this unfortunate condition?"

As the proper method of diagnosing and treating tuberculosis have been determined only within recent years, the majority of practicing physicians of to-day did not receive instruction on these subjects in their college courses, and so must depend on medical writings for their knowledge. Medical articles on tuberculosis during the past ten years have been written almost solely by men who are specializing in the treatment of tuberculosis, and these have been so anxious to exploit some new form of diagnosis or treatment that they have neglected to lay stress either on the recognized methods of diagnosis, which are at the disposal of the general practitioner and which do not require special skill in physical diagnosis; or on the essentials of treatment. The consequence has been that many general practitioners have tried to depend on the finer methods of diagnosis such as tuberculin test and the X-ray, the findings of which they are not able to properly interpret; and in treatment, on tuberculins, vaccines and other special treatments, thereby neglecting the very essentials themselves.

Look over the medical literature of the past ten years, and one will find that comparatively very little has been written on the value of fresh air, good food, and rest in the treatment of tuberculosis. These subjects have been left to the Journal of the Outdoor Life and to the literature that has been

distributed to the laity by the different anti-tuberculosis societies. The truth of the matter is that the laity to-day has a better conception of the value of rest in tuberculosis than has the medical profession.

In the diagnosis of tuberculosis, anamnesis—a carefully elected history of the case;—is of the very first importance. Persistent loss of weight, lassitude, loss of appetite and indigestion are strongly suggestive of beginning manifest tuberculosis. These symptoms in themselves are quite enough to call for active treatment in every case; and the essentials of treatment in tuberculosis are applicable to these cases whether the symptoms be caused by tuberculosis or some other disease. When to these are added cough, a slight afternoon temperature, and possibly night sweats, one is justified in making a tentative diagnosis of tuberculosis regardless of the lung findings, and insisting on immediate and active treatment.

In tuberculosis, fresh air, good food and rest are still the essentials of treatment. Without these remedies properly applied all other measures are, in the majority of cases, absolutely worthless. The majority of the practicing physicians of this country have apparently utterly failed to grasp the all-important facts that in tuberculosis as in other diseases *care* is the essential factor of successful treatment; that before a patient will consent to take this care or cure (the words are from the same root and were originally identical in meaning) his true condition must be frankly described to him; and lastly that the disease must be diagnosed and active treatment begun

fairly early, if a permanent arrest is to be affected.

Perhaps the most glaring fault in the treatment of tuberculosis as prescribed by the majority of physicians is their failure to push rest while the disease is active, and to insist on very carefully graduated exercise when the lesion has become quiescent. The former—rest—is the most powerful therapeutic agent we have to arrest an active tuberculosis process, while the latter—carefully graduated exercise—is practically the only means of restoring the patient's working capacity. It is during the latter period that the constant care of a physician is most needed.

Serums and vaccines may be valuable adjuncts to treatment in a limited number of selected cases; but they should never be given a very prominent place in the armamentarium of treatment. Moreover, like all powerful remedies, they are dangerous in the hands of the inexperienced. Of the many hundreds of physicians in the United States who are using tuberculin today, how many are familiar with even our limited knowledge of the principles of immunity? How many realize the true import of "sensitivity" and "tolerance" and their bearing on the dosage of tuberculin? Is it any wonder that some of these physicians advise the giving of tuberculin by nurses and even by patients to themselves?

In the opinion of the writer the introduction of tuberculins in the treatment of tuberculosis has proved most unfortunate for the majority of those suffering from this disease. It has de-

layed the rational treatment of tuberculosis at least ten years and by so doing has sacrificed thousands of useful lives, not only through the direct harm done by its administration, but more especially by diverting the attention of the profession from the essentials of treatment and by encouraging patients to pin their faith to non-essentials and to follow wil-o'-the-wisps in the hope of finding a cure-all for this disease.

How can this condition be remedied? By a perennial stream of articles before the medical societies and in medical journals emphasizing the need of the early diagnosis of tuberculosis and the methods of diagnosis which do not require special skill in examination. These articles should repeatedly call attention to the essentials of treatment, and point out that the so-called special treatments are only accessory, and in many cases unnecessary. When men specializing in tuberculosis wish to read papers on special points in the finer diagnosis of tuberculosis, or some special form of auxiliary treatment, let them present such papers before tuberculosis associations rather than before societies of general practitioners.

This plan could be carried out systematically through concerted efforts of the National Association for the Study and Prevention of Tuberculosis and its various state (affiliated) associations. Let the secretary of the National Association endeavor to see that such articles as have been indicated are read before the various national medical associations each year; and let the secretaries of the State Associa-

tions for the Study and Prevention of Tuberculosis arrange for similar articles before the respective state medical societies.

Arrangements for regular post-graduate courses in tuberculosis in the different State Sanatoriums and in such philanthropic institutions as the Saranac Lake and the Barlow Sanatorium in Los Angeles could be made by these tuberculosis associations, and should do much to enable busy general practitioners to inform themselves regarding the best methods of diagnosis and treatment.

In this way it would seem that these different anti-tuberculosis associations could extend considerably the magnificent work they are already doing in the fight against this dread disease.

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## THE ROENTGEN RAY IN PULMONARY TUBERCULOSIS.

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Read before the joint meeting of the New Mexico Medical Society and the New Mexico Society for the Study and Prevention of Tuberculosis, Albuquerque, N. M., October 4th, 1913.

The presence of the tubercle bacillus in the expectoration from the lung is the only finding which alone can stamp a case of pulmonary disease as tuberculous. The X-Ray cannot, unassisted, label a case tuberculous. Its value is third if not second in the diagnosis of

thoracic disease. It concentrates into one view the abnormality or normality of the chest cavity.

The Ray may be used in one of two ways to reveal the pathology of the chest, the fluoroscope and skiagram.

The fluoroscope may be used directly or may be used to make a tracing of the shadows and then studying the tracing. Of these two methods the former is the more desirable as it does not expose the patient or operator as long to the injurious action of the ray.

A tracing is an economical permanent record. Further, it has nothing to recommend it.

The skiagram may be used or studied as a plate or a print may be made. The best results are to be obtained by study of the plate as detail is lost when prints are made. The prints owe their chief value to being more portable and may be made much smaller than the plate. It is almost necessary to have a properly designed illuminating box to carefully study the plate. This obviously militates against the comparison of several plates at the same time.

It is not within the province of this paper to speak of technique in so far as it relates to development, manipulation of current, etc. I have but one statement to make in regard to technique. Place the patient so that portion which is most desired to be examined well be nearest to the screen or plate. For instance, if it is desired to examine the bronchial glands, put the screen or plate against the patient's



back. For routine chest work the best results are to be obtained by placing the tube in the front of the patient. In other words, the plate or screen to the patient's back.

What is the normal fluoroscopic picture? When the chest is viewed illuminated by X-rays, the first glance shows the ribs, rather the light space between the ribs and a large black shadow in the median body line. The latter shadow is the heart and great vessels. On closer study the heart shadow is seen to be expansive, and the light between the ribs slowly increases and decreases in lightness as the patient exhales. Under the most favorable conditions the lung shadow, the space between the ribs, may have a slight marbled appearance. This is said to be due to the lobule of the lung. Delicate dark tapering lines may be seen leading fan-like from the neighborhood of the hilus toward the periphery of the lung. These lines are due to the blood vessels and bronchi. The darkest lines are probably blood vessels, and the lighter, bronchi. For some unexplained reason the right apex is a trifle darker than the left. In the normal lung, however, several deep respirations will cause the two apices to become approximately of the same degree of lightness. The lower part of the lungs is distinctly marked off by a sharp black shadow—the diaphragm, and the stomach and liver which are just beneath it. As the patient breathes this shadow moves upward and downward, practically the same distance on both sides. A limitation of this movement, especially when on one side only, is indicative of disease, and is known

as Williams' sign. Williams claims this to be one of the earliest signs of tuberculous disease of the pulmonary tissue. Another sign which may be mentioned here is Abram's sign. This is a drawing away of the heart from the chest wall when the skin is irritated about the left nipple. Failure of the heart to draw away usually indicates pleuro-pericardial adhesions but may indicate heart or pericardial disease.

Fluoroscopic examination of the tuberculous chest will give a picture varying according to the character of the pathology present from a hardly perceptible condition to complete obliteration of all normal landmarks. It must not be forgotten that the shadows of tuberculous disease may be simulated by other conditions—such as carcinoma, sarcoma, syphilis, hydatid cysts, etc. Fortunately these conditions are rare. In the slightly tuberculous case the first thing noticed is the increase in size of the radiating lines described as spreading from the hilus. On these lines small dots can sometimes be seen. These lines with the dots constitute the beginning stage of what Jordan calls peribronchial tuberculosis and demonstrates, according to him, that the disease first originates at the hilus and spreads to the apices where the disease is more often said to originate. In the more advanced cases a portion of the lung may appear darker than the corresponding portion of the other lung. For this darkening to mean anything it must not clear up under deep respirations. The movements of the diaphragm on the side of the shadow will usually be restricted or

retarded. When the disease reaches the moderately advanced stage the dark areas will be distinctly darker than the surrounding tissue, but in addition to this, there is usually a distinct mottling without sharp outlines. Williams' sign is positive. The far advanced case usually shows a complete obliteration of the normal landmarks. The arrested or healed tuberculous involvement usually shows scattered sharply marked black dots on a background which is darker than normal lung shadow. Cavities are difficult to diagnose. If they are partly filled with fluid they may be diagnosed by changing the position of the patient, in this way changing the level of the fluid. Pleural effusions are to be diagnosed in the same way—changing the position of the patient. It is not to be forgotten that a cavity may be surrounded with enough fibrous tissue to offer the same resistance to the ray as the normal lung, or a pleurisy may cause the production of enough fibrous tissue to produce a shadow of the same density as a pleural effusion.

There is but little doubt that the skiagraphic method is the best way in which to use the Roentgen ray in the study of the chest. This because it is a permanent record, more sensitive to the ray than the eye, and does not expose the patient or operator to the prolonged action of the ray. It has further advantage in not being so destructive to tubes and apparatus. It is more expensive and requires more time than fluoroscopic examinations.

The plate should be studied rather than the print. The plate is best viewed in a properly illuminated box.

It is to be borne in mind that a plate is opposite in color to the screen or print, i. e.: the heart shadow is black in the print or screen and white in the plate. The exposure should be made in the average case with the tube target opposite the angle of Lewis. This gives the strongest rays thru the hilus and apices. The patient should be instructed to take two or three deep respirations and the exposure made while holding his breath at the end of deep inspiration. This clears up the apices and gives the best location of the ribs for uniform illumination of the entire chest and especially the hilus.

The best plate is made by having the plate against the patient's back. When the plate is placed in front of the chest, the anterior ribs obstruct too much of the view since they are wider than the posterior ribs. Another advantage of placing the plate against the patient's back is that it gets the apices and bronchial glands nearer the plate, giving a sharper shadow than is possible with the plate placed anteriorly.

What is a normal plate? The normal plate is the same as normal fluoroscopic except the colors are reversed. The plate usually shows the so-called "butterfly shadow" at the base of the heart due to the bronchial glands. The normal plate will usually show delicate faint white lines spreading from the hilus toward the cortex of the lung. These lines are usually more prominent in the upper part of the chest. In other words, the lines which spread into the superior lobes are more prominent. They are more often seen on the right than on the left. Sometimes under favorable conditions they are seen

to be of two types—a fine branching structure whose outline is “washed out” in character and a courser branching structure with sharply defined outlines. The latter are shadows of bronchi and the former of blood vessels. The “washed out” outline of the blood vessels is due to pulsation. These blood vessel lines can sometimes be seen on the heart shadow as well as on the lung shadow. In the majority of cases the blood vessels do not show.

A plate made from a tuberculous chest may show anything from a lightness of some small portion of the lung to the extensively mottled lung which completely obliterates the bony landmarks. This mottled condition usually spreads from the hilus. The very early case will show the lines mentioned above slightly increased in size and with occasional dots scattered along their course. The increase in size and number of the dots explain the mottling seen in the more advanced or advanced cases. The mottling near the hilus is usually sharply marked and becomes less sharply marked as they spread outward. The stereoscope will show that the majority of the bands, branching lines, extend outward backward and upward and that the mottling follows these lines first and then spreads along those which extend forward. This mottling is more often found on the right than on the left side. The mottled areas are seldom found that average more than 1.5 cm. in diameter. This mottling has been described as “mossy areas.” In the typical “mossy” plate all the lung shadows have the washed out outlines.

In some plates we find the upper

part of the lungs showing the mossy areas while the lower part is a large blur. This white blur is due in a majority of cases to pleurisy and may be due to bronchiectasis or pleural effusion. To differentiate pleurisy from exudate, Krause takes two plates, a dorso-ventral and a ventro-dorsal. If the shadow is due to exudate the shadow will be of the same density, if due to pleurisy it will show different density. Instead of making these two plates stereoscopic views should be made and in this way making it possible to differentiate all three conditions.

In some plates we find small, light, sharply marked, usually round dots. These may be spread over extensive areas. These dots are believed to represent a healed or arrested condition. This condition has been described as scattered flakes, and represents a good case.

In conclusion I will quote Sewall: “Roentgen ray pictures of the lungs may prove of the highest value either in reassuring one as to the absence of suspected trouble or in giving warning of low resistance. In good cases the skiagraphic evidence of scar tissue, opaque scattered flakes and strands, and calcifications of lymph nodes are apt to be profuse even in the absence of physical or clinical signs. In “bad” cases there may be softly mottled or “mossy” areas indicating infiltration, without sharp shadows of fibroid changes or calcification of lymph nodes. Clinical experience shows such subjects as exceedingly liable to retrograde on the slightest excuse, and the rest cure seems specifically necessary for them.”



## SPECIFICS.

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Read before the joint meeting of the New Mexico Medical Society and the New Mexico Society for the Study and Prevention of Tuberculosis, Albuquerque, N. M., October 4th, 1913.

A review of the experiences of various investigators and phthisio-therapists with so called Specifics shows that all the remedies when they act at all act only by giving relief of one or more symptoms.

So called Specifics may be classified in the following manner: Medicinal, Management, Climatic, Mechanical, Electrical, Organo-Therapy, Serums and Bacterial Agents of various descriptions.

Under the Medicinal, I will review only the most important. Creosote and its derivatives have long since been employed in pulmonary tuberculosis. Their action has never yet been determined. It is believed, however, that they have a local action and possibly have a decided effect on the toxine. Some maintain that it is especially indicated in mixed infection, while others believe it has little if any effect. Most of us will agree that it does improve appetite and digestion and is therefore of much value in many instances.

Arsenic has been held to act as a Specific. It is true that it stimulates nutrition remarkably and is used very successfully, indeed, in the anemia of tuberculous cases, but in febrile cases its effect is open to discussion.

Alcohol was formerly thought to be a Specific, and it a great disappoint-

ment to many of our patients that it is not. It is, however, of unquestioned value in some cases as it is a food to a varying degree, stimulating gastric secretion, enabling the ingestion and assimilation of fatty foods. It also stimulates the heart and central nervous system, thus preventing hypochondria. The objections to its use are numerous and more than offset its valuable points.

Strychnia has been said to have a Specific action. Especially in increasing doses up to one-half or even one grain in 24 hours. It is of unquestioned value as a tonic and only as such.

Cimanic acid and Hetol are being advocated by certain foreign investigators because of its power to produce leucocytosis. They claim that it prevents and even replaces caseous matter by vacular connective tissue forming true scars and increasing lymph flow, thus producing a healing of the tuberculous lesion.

Ichthyol has had its sway. It acts only in checking the decomposition of albumins and is a vaso-constrictor, thus having a tendency to reduce expectoration.

Iodine very popular three or four years ago, was believed to have an anti-septic action on the tubercle bacilli and to promote phagocytosis. It has lately been proved to have only a slight anti-septic action as far as tubercle bacilli are concerned and is of little value as such. It is, however, an invaluable rubifacient in pleurisy and none of us would be without it in most cases.

Calcium, we now know has not Specific action on the tubercle bacilli, however, on account of the demineralization occurring in pulmonary tubercu-

losis, I believe it is a valuable remedy. Especially since we can use the lactate in enormous doses without gastric disturbance. It has a good effect, also, on the gastro-enteric tract, in all cases that bear it well.

The Hygienic-Dietetic Management as a Specific treatment comes nearer the true sense of the term than any single or combination of remedies. In my opinion most cures owe their cure to management more than to any one thing, except possibly Climate. The management of tuberculous cases is practically the same the world over. All agreeing on rest, fresh air, good food and regulated exercise.

Next to Management, Climate no doubt plays the greatest role and has the best influence in aiding the establishment of cures. Especially if combined with proper management. Our cities, towns and villages scattered about New Mexico, Arizona, Colorado, Southern California and Southwest Texas, founded on barren waste are everlasting material monuments to the true value of Climate in the treatment of tuberculosis.

Under Mechanical Specifics I shall not try to enumerate the vast array of pneumatic cabinets, apparatus for inhalation and what not. Under this head, however, it would seem proper to discuss artificial pneumo-thorax. While its application is in a sense a surgical procedure, its action is purely mechanical. I know nothing from a theoretical standpoint more classical, but I do not believe it will come into universal use, because of the few cases in which the application is advisable and in fact that the true results in most cases are merely palliative.

Electricity has also been heralded as a specific, the Light bath, the X-Ray, the Violet Rays, etc. I have seen the X-Ray do apparent good in tuberculous glands and I have, also, seen it apparently hasten the breaking down of the glandular tissue. It is claimed by many that the Ray actually destroys the bacilli in the gland. This I could never believe in view of the fact that I have never seen a case of true tuberculosis of the skin cured by the Ray. When the Ray can more easily penetrate and destroy the organism in the skin than it could travel through the skin and other tissues and have a destructive action at some internal point.

Organo-Therapy active or passive, occupies in the Specific Therapy a position demanding on a practical side, little or no consideration. I will mention under this head the work of Brushetini, who combined a sort of organo-therapy with the administration of tuberculin, hoping thereby to get both at the tubercle bacilli and the tubercle. He makes an extract from the tubercles obtained from the lungs of the guinea pig which he has previously inoculated. In the discussion of his paper in Rome, last year there was a great deal of favorable comment as to the results obtained by this combined therapy. Since then I have heard little or nothing about it. I do not believe it has been tried in this country.

Passive immunization by means of serums of treated animals has been attempted by many. The most notable of which are those of Maragliano and Maromec. They and their pupils claim good results, but for some reason these serums have never been popular. Homologous serums have apparently

done good, most of us have seen cases of pleurisy with effusion make cures rapidly. Undoubtedly, the absorption of the fluid has a great part in the healing process for this reason the use of blisters and the reabsorption of their contents is practiced by many. Horse serum has been used both alone and in conjunction with tuberculin. I used this method for over a year in my tuberculin cases and the results did not warrant its further use. Antistreptococcic serum has been widely used on account of its supposed specific action on phthisis and from its infection. It has practically gone into disuse.

Since 1905 tuberculin has again slowly forged to the front and now stands at the head of all attempts calculated to produce an active or passive immunization. Just how tuberculin can produce even a passive immunization when we consider that tuberculosis is not a self limited disease and shows no tendency toward producing an immunity after a complete cure and conferring on the offspring not immunity, but a predisposition to the disease is at present beyond all human calculation, however, I believe it to be a most valuable asset in many cases combined with proper management, etc. There seems to be no doubt as to its value, especially in cases partially arrested, but remaining stationary as far as progress toward a cure is concerned even under the best care and conditions for months. It seems to me that if tuberculin produced no other effect than the reduction and elimination of tubercle bacilli in the sputum of many patients, and this no one can deny, it has served humanity a great purpose. It is of little concern which particular tuberculin is

used if used cautiously the most popular theoretically, at least, is B-E in B-F. Bovine tuberculin has not met with favor in the treatment of the human type of the disease. Attempts at immunization with the living organism is now being worked upon by many, especially with the attenuated forms. Friedman in his hurry brought wrong cultures to this side and has returned to the Fatherland a complete failure and I trust a dampened ardor. About the time of his demonstrated failure Karl von Ruck saw to it that it was brought out by the Associated Press in a clear cock-sure way and even attempted to call the attention of Congress to an immunizing vaccine made in a special manner by himself. There can be no doubt from the method of its preparation that it might have a beneficial influence in some instances as a therapeutic agent. However, in the hands of an equally responsible person it has been proved not to immunize animals, but really has made them more susceptible to the disease. I do not believe one can have much confidence in one's method and remedy when after he has presented his claims to the members of his profession he later finds it necessary, or at least advisable, from a commercial standpoint to bring it before the laymen in any such manner. Lately it has been maintained that tuberculin manufactured from the bacilli obtained from the turtle has a decided better effect than any yet produced. This as yet remains to be demonstrated. In my opinion, tuberculin or any derivative, or combination of derivatives, manufactured from the tubercle bacilli of any type or combination of types, will produce no better results



than is now being obtained by the administration of the most widely used product. It seems to me that when a true specific is found it will be chemical in nature, it will be destructive to the bacilli and will be able to penetrate the connective tissue, the tubercle itself and the remote corners of the human organism, not only through the circulation, but continuity of tissue and yet prove harmless to the tissues themselves. This is not impossible and many of us may live in the time of its practical demonstration. As mixed infection is of common occurrence in tuberculous disease, one can but consider the various specifics for this serious complication. Bacterial vaccine on account of the efforts of certain commercial houses are being widely and indiscriminately used. I have seen good results by their administration in a few instances. The failure in most I do not believe to be the fault of the vaccine, but due to the condition under which they necessarily have to act. The pyogenic membrane being protected by the wall of the tubercle and this in turn by connective tissue, almost impenetrable, chokes the flow of leucocytes and prevents their coming in contact with the seat of infection. For this same reason if tuberculin would so raise the phagocytic power of the white cell that we could produce and maintain an active immunity in the healthy man, I do not believe we could expect it to have more than a passive action.

Another bacterial preparation popularly known as phylacogens is now being used to combat mixed infection. I notice on their literature and advertisement in the Medical Journals they claim 83 per cent. cured. This, no

doubt, includes mixed infections of all descriptions. I have tried it only in the mixed infection complicating pulmonary tuberculosis and have seen in the few cases, absolutely no beneficial results.

In the history of no disease has there been handed down as many so-called specifics, flaunted and proclaimed by men of integrity and reputation in many instances, who were misled by their own enthusiasm. These specifics, so-called, in the hands of the sober and unbiased have changed the period of infatuation produced by their early announcement to one of disappointment and ridicule and in many instances has sent the remedy into oblivion.

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### THE FEEDING OF TUBERCULAR PATIENTS.

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Read before the joint meeting of the New Mexico Medical Society and the New Mexico Society for the Study and Prevention of Tuberculosis, Albuquerque, N. M., October 4th, 1913.

This subject should be of particular interest to physicians of this region on account of the large number of tubercular patients residing in our midst. It is of the utmost importance in the treatment of this disease, as thousands of patients are yearly made or marred by their food. It frequently makes the difference between uneventful recovery and serious or fatal complications.

There are a number of factors that put tubercular patients in a class by themselves, as far as the diet is con-

cerned. Of a great deal of importance is the fact that they are much less active, physically, than they were before they became ill. This, if other factors were equal, would materially lessen the amount of food required.

The appetite is as a rule diminished. Pawlow has proved by experiments on fistula dogs that a meal eaten with appetite and relish calls forth better gastric and pancreatic secretions than when eaten under the opposite conditions.

We know that the strength and vitality of tubercular patients is markedly lowered. The digestive power as a whole is diminished. The gastric secretion is frequently depressed, probably also the bile and pancreatic juice, and the stomach and intestinal musculature is more or less atonic. These factors predispose to fermentation and putrefaction of food, even when the patient eats only the amount he needs.

The influence of the products of the disease itself is of importance. The amount of the absorption of toxins and the fever are dependent upon the extent and severity of the lesion and the protective reaction of the body. There results more or less destruction of tissues of the body owing to the increased dissipation of energy which must be compensated for by an increase in the diet, when possible.

The amount of food that a healthy person requires is that which supplies sufficient energy for both physical and mental processes, and will maintain his weight and strength. The tubercular patient has the same needs plus what is wasted as the result of the disease. We cannot make a general statement that a tubercular patient

needs so many calories. The individuals are large and small, fat and thin, and physical exercise varies from rest in bed to considerable exertion. In ordinary practice we cannot more than roughly estimate the caloric value of the food taken. To do this accurately we must weigh the food given and the amount left uneaten, and estimate the caloric value of the amount of each article consumed.

A tubercular patient under treatment is usually below his average weight before his illness began, which may be below normal for an individual his age and height. If his digestive capacity will allow it, it is advisable to increase his weight to his average in health, or to normal, but I see no object in going above that. This is best regulated by careful observation and by weighing twice a week. I prefer a slow to a rapid gain in weight. A rapid gain means a risky overtaking of digestion as a rule, while a slow one is more apt to go into the muscles, and be of real value.

The importance of maintaining good nutrition in tuberculosis cannot be exaggerated, as it is frequently the most important factor in a patient's recovery. It means strength and vitality, and we might really call it latent immunity. But good nutrition is not all. Sometimes we have a patient who is well nourished and gaining in weight, who will nevertheless have an advancing lesion.

Many patients with good digestion, eating an average amount of food and not paying any particular attention to the diet, living in the open air, will have a rapid healing of the lungs and the weight will take care of itself, but difficulties arise when digestion is

faulty or the nutrition is poor as the result of the activity of the disease. Considerable care must be given to the feeding of such patients so as to keep the nutrition at the highest possible level. Authorities differ as to the best method of forcing the feeding. Some believe in a low amount of proteid content of food, others in high proteids and fats, some in increasing the amount of each of the three meals, others in frequent small feedings; some in slightly increased food values, others in very high values.

I believe that unless there be some good reason for the contrary in the particular case in hand, the proportion of proteids, carbohydrates and fats should be about the same as for a normal individual. When the patient is holding his own only, or slightly losing weight, as the result of the disease, all that is necessary, as a rule, as far as the nutrition and food are concerned, is for him to eat a little more at each of the three meals. Many of these patients eat sufficient in bulk, but not enough in food value, and the substitution of a glass of milk for water, tea or coffee at meals, or the addition of a raw egg after the highest meal, will often make the difference. Three glasses of milk and one egg equal about 560 calories. This alteration can be made with very slight tax on the digestion. This may be still further supplemented by a half a glass of milk and one or two crackers with butter between meals and at bed time.

Some patients through lack of appetite only, fail to eat enough, and either do not gain, or lose weight, on this account. A bitter tonic, hydrochloric acid and instructions to eat more,

whether they want it or not, is usually sufficient. Some will develop a fickle appetite and eat what would be sufficient, if ordinary articles were used, but limit their diet to non-nutritious articles, such as celery, lettuce, pickles, olives and cabbage. Others will cut out one article of food after another, thinking that they cause the indigestion from which they suffer, until finally very little is eaten. The altered digestive physiology of these patients should be studied the most digestible foods determined and the patient advised to eat sufficient of those articles. The importance of good nutrition should be explained, also the fact that in the long run there will be less trouble from eating a reasonable amount of food than too little. Also the bowels will be more regular and there will be less tendency to auto-intoxication. In an acute digestive disturbance we can starve a patient for a few days, but in a chronic disease like tuberculosis, where nutrition is of such great importance, we must give him sufficient nourishment, if possible, even in the presence of digestive symptoms. The outdoor life of a tubercular patient increases his appetite and makes his digestion better, especially when the weather is cool or cold, and in that way helps to maintain his nutrition.

Occasionally it may be noticed that a patient will be losing slightly in weight when he is apparently eating sufficient, and his lung condition does not seem to warrant it. Sometimes making a change in the relative proportion of proteids, fats and carbohydrates will correct this. Or a loss of weight may occur, and not be checked,



until the food is reduced; the excess being beyond the patient's capacity, and preventing a proper utilization of what he does take.

Many late cavity patients have no, or very little, appetite or an actual repugnance for food, and here we must decide how much food is needed and tell him what articles and how much to eat, and have him eat them whether he wants to or not.

Some physicians push the food to what they call the limit of toleration, gradually increasing the amount until indigestion begins. I would hardly recommend this, as the discovery of such a limit may be the beginning of chronic indigestion. In patients with good digestion this limit may be very high and the amount of food very much more than he needs. I see no just reason for endangering digestion in this way.

The subject of excessive over-feeding is a very delicate one, as some well known authorities practice it and claim very good results. By this is meant the consumption of very large amounts of food with a view to having the patient eat about all he can hold and make a rapid gain in weight. He is instructed to eat three large meals a day and follow each with raw eggs and milk, and take still more eggs and milk between meals and at bed time. With a lowered vitality, diminished secretions of the digestive apparatus and diminished exercise, it is more than he can handle. It is more than he ate, or could have digested, when he was well and yet he is expected to do it now with benefit. Try it on yourself in your present state of health and see how well you will stand it. Few persons will not

respond, sooner or later, to such a course with fermentation and putrefaction of food, auto-intoxication and occasional diarrhoea. The stomach does not have time to empty itself before it is overloaded again.

This is an exceedingly dangerous method to pursue, and is responsible for the death of a great many patients who might otherwise have had a good chance of recovery.

Elimination by the kidneys is very much increased and may result in albuminuria. An extensive lung lesion and fever are a considerable tax on an already weakened heart, and this is exaggerated by the increased metabolism resulting from stuffing, leaving out of account the constant upward pressure of an overfilled stomach.

I have seen a number of cases of dilatation of the stomach that have been caused in this manner, one of which was the beginning of a fatal down-hill course. The latter patient, and a physician too, who was doing fairly well before he began the stuffing process, in addition to three large meals, consumed fourteen raw eggs and three quarts of milk daily. There resulted increased pulmonary activity, dilatation of the heart and chronic passive congestion. About two years ago I saw a patient who had been stuffing, who had developed auto-intoxication and nocturnal epilepsy. On regulation of the diet and bowels the attacks stopped and he has had none since.

The effect of continuous over-feeding on the appetite is to materially diminish or destroy it. This would automatically diminish the digestive power of the patient, as proved by

Pawlow and others, and add another predisposing factor to the disagreement of the food.

A great many patients have done well and recovered after using this extreme method of suralimentation, but it is hard to say how many of these would not have been better off if they had eaten more moderately. Some who recovered did so at the expense of a chronic digestive disturbance, which should have been avoided. There may be some patients who will do better on excessive stuffing than on moderate over-feeding, but I believe that they are few only. The physicians who use and recommend this method probably do not see the evil effects of it as often as other men do, because when a patient's digestion becomes seriously impaired he changes his doctor or the climate, and passes from under observation.

Let us analyze this a little more closely with regard to calories. We may say that the average tubercular patient eats, of his own accord, a food value of from 2500 to 3000 calories. To make each meal a large one he would eat fully 25% more, totaling 3125 to 3875 calories. Now add to that at least 14 raw eggs (72 calories each), and three quarts of milk (650 calories each), and we get a total of about 6360 to 6833 calories. This is 20% more than a man at hard labor requires.

I believe that a tubercular patient, unless there be some very particular reason for doing otherwise, should be given food enough for his physical and mental processes, the waste caused by the disease and an estimated reasonable gain in weight, if he be below nor-

man, *and no more*. In an average incipient or moderately advanced case, doing light exercise, 3500 to 4000 calories are sufficient, and some authorities advise less.

Here I would like to quote some of Rubners figures on the energy requirements of normal individuals.

Man at rest.....	2500 calories
Professional man .....	2631 "
Moderate muscular work..	3121 "
Severe muscular work...	3659 "
Hard labor .....	5213 "

The average male tubercular patient certainly does not take more physical exercise than the professional man of this table, and the difference between 2631, 3500 to 4000 calories is easily sufficient to make up for the altered metabolism and to allow a gain of weight, provided he can assimilate it. Women as a rule require less than men, as they are smaller and less active. This has been estimated at about 200 calories a day.

All over-feeding, even moderate, must be carried out under very careful observation and the patient weighed frequently. We must individualize and give reasonably detailed instructions.

Here I wish to call attention to a mistake that some of our eastern colleagues make, and enter a protest. An occasional patient comes west who among other things, has been advised to eat all he can hold. I have had a number of such patients consult me for indigestion which was due to nothing but irrational stuffing. Recovery resulted when a reasonable diet was followed.

There are a number of factors other than the food itself that influence the digestive processes. Eating under pleas-

ant conditions is of a great deal of importance. Pawlow and others have very well demonstrated the influence of pleasant and unpleasant conditions upon both the secretory and motor functions of the alimentary tract. Tubercular patients, on account of their illness, frequently fickle appetite and peculiar psychology are more susceptible to these conditions than are normal persons. The room should be well furnished, the service good, only pleasant subjects discussed, and business and medical topics avoided. The patient should rest before and after meals, and should not eat when fatigued.

The personal peculiarities and idiosyncrasies must be taken into account. So far as possible the articles of food should be given to him that he likes and will eat with relish, and no attempt should be made to force food upon him that he dislikes, unless there be some very special reason for so doing.

Now as to the food itself. The articles of food known to be very difficult to digest should not be given, especially when there is the slightest indigestion present. They should, of course, be of first class quality. Some hospitals and institutions have fully recognized the importance of this and employ a skilled dietist, not only to supervise the preparation of the food, but also to receive everything sent by the produce dealer, and reject what is not up to standard. An attack of ptomaine poisoning can, in a few days, make an unfavorable out of a favorable case. A slightly decomposed article may cause gastrointestinal decomposition when a fresh one would not. First class articles always excite a better appetite and are

eaten with more relish, in addition to being more digestible, than those of poor quality. Proper care should be given to food, both before and after cooking, to prevent contamination by dirt and insects.

All food should be well cooked. A good cook can do a great deal toward making the food appetizing and the meal enticing. A poor cook can ruin the best of material. A great many patients come to this region annually without money enough to get proper food. They board at boarding houses or down town restaurants, where in many instances the food is of such poor quality and preparation that it will not agree with an active, healthy man.

We physicians in the west frequently have impressed upon us the importance of the financial condition of the patient. The tubercular patient with sufficient money is very fortunate. Among other things it means to him good food and this alone, in many instances, insures a favorable outcome to his case. Money spent for good board, is, if the patient can afford it, the best investment he can make.

With regard to the feeding of patients with digestive complications, it is necessary to diagnose the condition present, to study the altered physiology and find out how each class of food is digested. This cannot be taken up in a paper of this length.

In conclusion I will say that the successful feeding of tubercular patients is a question of careful observation, weighing, selection of first class material, good cooking, a knowledge of the digestive complications and their dietetic treatment, and all well governed by good judgment.



# A FURTHER REPORT ON MARKED HEMORRHAGES FROM THE BOWELS IN TU- BERCULOSIS.

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Read before the joint meeting of the New Mexico Medical Society and the New Mexico Society for the Study and Prevention of Tuberculosis, Albuquerque, N. M., October 4th, 1913.

Marked hemorrhage from the intestines is a condition seldom met with in cases of tuberculosis, although blood in small quantities in the stools is not uncommon. In fact, as our previous report (J. A. M. A. 1912, Vol. LXVIII, No. 2, p. 113) some time ago shows we have had only three cases in an experience covering fifteen years while Dr. Bonney reports two cases over a period of twenty years. Since the publication of these four cases we have received a report of one case from Dr. A. G. Shortle, of Albuquerque, N. M.; one from Dr. E. S. Lauzer, Rock Springs, Wyo.; one from Dr. Roy E. Thomas, of Phoenix, Ariz., and one from Drs. Shuman and James of Centerville, Iowa. Another report (Cruice, John M. Medical Record, Sept. 13, 1913, Vol. 84 No. 11, p. 471) has come to our notice which covers the literature from 1829. Over that period of time Guyenet (Des Hemorrhagies Gastrointestinales d'origine tuberculeuse 4° Lyon 1892) was able to collect but fifteen cases of intestinal hemorrhage including Tonnele's first observations prior to 1899, which taking

into account Guyenet's own case made a total of sixteen. In a careful search of the literature since 1892 the time of Guyenet's report, Cruice has been able to add but ten additional cases including our report of five. With his report of four cases the grand total in literature since Tonnele's report in 1829 to the present date is thirty cases. Adding now to this number the four reported to us personally we bring the total to thirty-four.

There is little doubt of the rarity of this condition when one considers the large number of tuberculous invalids under careful supervision, where, if such hemorrhage occurred, a report would undoubtedly be made. Considering, as Cruice says, the fact that a great percentage of patients dying of pulmonary tuberculosis have more or less ulceration of the intestinal tract it is remarkable that there are not more cases of hemorrhage from the bowel. However, it must be remembered, that in all tubercular processes there is an obliterative endarteritis which may well account for the rarity of such bleeding.

In explaining the cause of such hemorrhage there is no reason why it should not occur from tuberculous ulceration of the intestines as it does in typhoid ulceration. The dyscrasic theory of Guyenet seems far fetched since it is hard to imagine a hemorrhage of this size in which there is not a rupture of some vessel. They may, however, be due to a pneumococcus infection of the intestinal tract as pointed out by Jacobsen and Post (A. J. Medical Sciences, Mar. 1912, Vol. CXLIII, No. 3.) though this is not likely.

In our cases there were no evidences

of special symptoms differing from those common to all cases of tuberculosis. It is interesting to note that in one of our cases and in one of Dr. Bonney's no symptoms of intestinal tuberculosis were noted, the hemorrhages being the first evidence of the disease. The fatal case in our series was that of a far advanced consumptive who was too weak to stand the loss of blood and whom we expected to die at any time as a result of his general weakened condition. Our other two patients, as well as one of Dr. Bonney's, and the patient of Dr. Thomas, made good recoveries and suffered apparently no ill effects from the bleeding. The four reported by Cruice all died, but all were far advanced consumptives. The pulse and temperature usually drop after the bleeding, and in our cases the bowel condition was much improved.

The prognosis is, of course, grave, since the majority of consumptives suffering from this complication are too weak to stand the great loss of blood which necessarily ensues.

The treatment we have used is absolute rest, liquid diet, hypodermics or morphine 1-4 grain at the time of the hemorrhage, followed by opium suppositories every two hours pushed to the point of therapeutic effect.

Case 1. Bonney. Patient dead after a marked hemorrhage from the bowel.

Case 2. Bonney. Male, age 42. Tuberculosis for fifteen years. Marked fibrosis with cardiac dislocation and cavity formation. No fever. No evidence of intestinal disturbance for some months previously. Tarry stools reported for some time before copious hemorrhage from the bowel. Patient became thoroughly exsanguinated but

under immediate stimulation, rest in bed six to eight weeks with regulated diet and opiates recovery eventually took place.

Case 3. Shortle. Patient dead after marked hemorrhage from bowel.

Case 4. Lauzer. Patient dead after three severe hemorrhages from bowel.

Case 5. Thomas. Male, age 16, hemorrhage from the lung, March 12th, 1912, was first indication of pulmonary tuberculosis. April 15th, hemorrhage from bowel. Slight hemorrhage of blight red blood every day for fourteen days. Previous temperature 102, dropped to 99. Recovery.

Case 6. Shuman and James. Male, age 19. *Family history*: Negative as to tuberculosis, cancer and lues. *Personal history*: Boy was never quite right, always dull and stupid. Asthma past three years. *Present illness*: Ill, September 8th, 1911, asthmatic attack. Pain in left ear. Five days later still pain in left ear. Temperature 101. Pulse 100. Mentality dull. September 16th, 1911, diagnosis of mastoiditis. Temperature 101.5. Pulse 120. Respiration 18. Patient aroused with difficulty. Polyp in left ear filling deep aural cavity. Tenderness over left mastoid. No bulging of canal. Brudzinski, Kernig and Babinski strongly present. Glandular, pulmonary and cardiac findings negative. Digestive tract negative. Delirium present. Pupils equal and react to light. Eye grounds show choked disc, left most marked. Blood examination: hemaglobin 80%; white cells 8,000. Differential count, small lymphocytes 10%; large lymphocytes 5%; large mononuclear and transitionals 5%; poly-

morphonuclear 80%. Urinalysis negative. Widal test negative. September 21st, 1911, spinal puncture showed pressure plus. One ounce clear fluid removed. No microorganisms found. Diagnosis of tuberculous meningitis, secondary to chronic mastoiditis made on the following. Positive Brudzinski, Kernig and Babinski signs, the low grade temperature and pulse rate, chronicity of disease, choked disc, absence of leucocytosis. September 23rd, developed bilateral catarrhal conjunctivitis and a left sided parotiditis. Condition continued to grow worse. September 26th. Involuntary stools dark brown in color becoming more red followed by pure blood. Died September 27th, 1911. *Autopsy.* Intestines: ileum, negative; ascending colon darker than other bowels and distended. No free fluid. Lungs and heart normal. Spleen normal. Liver normal. Gall bladder compressible. Pancreas normal. Kidneys normal. *Gastro-Intestinal tract.* Stomach filled with a dirty yellowish fluid with a sour odor. Mucosa shows many punctuate hemorrhagic areas, most marked on greater curvature. Duodenum jejunum and ileum show small haemorrhagic areas and around ileo cecal valve punctuate haemorrhagic areas are more pronounced. Caecum: lower ten inches of ascending colon had nine ulcerated areas from one to four cm. in length and five-tenths to one and five-tenths cm. in width. All situated transversely extending through mucous membrane into muscularis. Edges not undermined. Base dirty bluish red color. No crusting. Nearly all show signs of recent hemorrhages. Ascending, transverse and descending colon contain

dark hemorrhagic fluid. Five small glands noted on mesenteric border of ascending colon near ileo cecal valve. Appendix, rectum and genitalia negative. Diagnosis. Death due to hemorrhage from tuberculous ulcer of the colon. *Microscopic examination.* Mesenteric glands sectioned and dissolved by anti-formin methods showed several gramophile bacilli. Diagnosis, gramophile tubercle bacillus. Ulcer area showed round cell infiltration.

Case 7. Peters and Bullock. Male, aged 23. Tuberculosis for three years; Turban stage iii. Temperature, 102; pulse, 100; blood-pressure, 116. Tuberculosis of intestines. Three to four movements a day with pain, mucous and blood-streaked stools. Severe hemorrhage from bowel, Nov. 4, 1911, which ended in death.

Case 8. Peters and Bullock. Admitted March 9, 1911. Male, aged 27. Tuberculosis two years; Turban stage iii. Temperature, 100.1; pulse, 90; blood-pressure, 144. Tuberculosis of the intestines, fistula in ano, seven to eight movements a day with pain and gas. Mucous and blood-streaked stools. June 15, severe hemorrhage from bowel with rise of temperature to 103. Several smaller hemorrhages covering a period of three months in all.

With absolute rest, liquid diet and opiates patient went on to good recovery. All symptoms of tuberculosis of intestines disappeared patient gained 13 pounds. Feels well, appears well; temperature, 99; pulse, 80; hemoglobin, 100. This patient had several small pulmonary hemorrhages at the onset of the disease.

Case 9. Peters and Bullock. Admit-



ted Aug. 2, 1911. Male, aged 29. Tuberculosis six years; Turban stage iii. Temperature, 99.2; pulse, 100; blood-pressure, 138. No symptoms of intestinal tuberculosis.

Temperature suddenly rose to 104, followed by severe hemorrhage from bowel with two smaller hemorrhages on the two succeeding days. Temperature fell by lysis and under absolute rest, liquid diet and opiates, patient made good recovery. There were no further symptoms of bowel condition.

## Book Reviews

### PROGRESSIVE MEDICINE.

A Quarterly Digest of Advances, Discoveries and Improvements in the MEDICAL AND SURGICAL SCIENCES. Edited by Hobart Amory Hare, M.D., assisted by Leighton F. Appelman, M. D. Volume III September, 1913. Diseases of the Thorax and its Viscera, including the Heart, Lungs, and Blood-vessels.—Dermatology and Syphilis.—Obstetrics.—Diseases of the Nervous System. Published by Lea & Febiger, Philadelphia and New York. 1913.

The September issue of Progressive Medicine, is one of the best and most instructive numbers that has appeared. It opens with a digest of the literature on Diseases the Thorax and the portion dealing with pulmonary tuberculosis is unusually masterful. This is the first time that tuberculosis has received such extensive mention, and Dr. Ewart has given us all that has been said and done across the sea during the past year, and he has written in the

usual entertaining English style, and while some of the conclusions are somewhat at variance with the accomplishments of the American profession, particularly in reference to tuberculin administration, and its beneficial effects, other fields of tuberculosis treatment correspond with results at home. Reports from the artificial pneumothorax are very encouraging, and quite a field is open to those more progressed and advanced in the later stages of tuberculosis, by Carcon's method of treatment. The remaining portion of Dr. Ewart's branch are equally well handled, and as instructive. Quite an amount of space is given to Syphilis and Skin Diseases, and the literature upon these subjects has been reviewed thoroughly and the topics are brought down to the date of issue. Little advances have been made in certain diseases as the etiology of eczema, and after weighing the prominent papers and discussions that have appeared recently, this conclusion is stated. Of course there is much interesting material appearing upon Syphilis. The department upon obstetrics is about the usual data as appears, but the greatest addition is the use of the sera in varied eclamsiae, and the reports indicate some success as having been accomplished by their use. The Nervous Diseases receive their proportion of space and attention, but as usual it is dry reading for the man not directly interested as is the specialist in this branch. There is much data and material included in the work, which necessarily must be condensed, in order that the extensive branches treated of, might be entirely covered.

T. C. S.

## THE DISEASES OF CHILDREN.

By Enos Tuley, M. D.

Late Professor of Obstetrics, University of Louisville, Medical Department; Visiting Physician Masonic Widows' and Orphans' Homes, Louisville, Etc., Etc. With one hundred and six engravings and three colored plates. Second revised edition. St. Louis, Mo., C. V. Mosby Company, 1913. \$5.50.

Doctor Tuley has produced a most excellent work in this volume on Diseases of Children written in a plain forceful manner useful alike to general practitioner and student. Unnecessary detail is omitted while essentials are ever kept in mind and to the busy general practitioner such a work is most welcome. While a critical reviewer might be tempted to say that some of the diseases are touched upon too too lightly, we must not forget that this is primarily a work for the general practitioner who has not the time, as a rule, to wade through a mass of detail before coming to the point sought and therefore we believe that this work will be of more use to him for hurried reference than would one of greater detail.

We wish to particularly commend the excellence of the colored plates, that one showing Koplik spots being the first "illustration to our knowledge that shows the actual spots as they appear in the mouth."

The press work is done in a most acceptable manner, the print being clear and large. M.

GOULD AND PYLE POCKET CYCLOPEDIA OF MEDICINE AND SURGERY, based upon the second edition of Gould

and Pyle's Cyclopedia of Practical Medicine and Surgery. Second edition, Revised, Enlarged and Edited by R. J. E. Scott, M.A., B.C.L., M.D., New York. Philadelphia, P. Blakiston's Son & Co., \$1 net.

The first edition of this handy little manual was received with many kind words by the medical world and in this second edition there has been added much new matter, a thorough revision has taken place and omissions have been made where they were necessary.

To one desiring a pocket medical cyclopedia we heartily commend this little volume for its many tables and its system of cross references will enable the busy practitioner to gain much information at a glance while more extended study of a particular point may be delayed until a more opportune moment. The printing is on thin paper and the book is bound in limp leather making it a handy volume for the pocket as well as for the desk.

ESSENTIALS OF PRESCRIPTION WRITING. By Cary Eggleston, M. D. Instructor in Pharmacology, Cornell University Medical College, New York City. 32 mo of 115 pages. W. B. Saunders Company, 1913. Cloth, \$1.00 net.

In these days of ready made mixtures the art of prescription writing seems to be shelved. This little volume of Eggleston's comes as a timely reminder that there is yet need of knowing how to write a prescription. The book should be in a handy place on the desk of every practicing physician.

# The New Mexico Medical Journal

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## LOMBROSO.

Comparatively few physicians in this country are familiar with the writings of Lombroso, or know the large amount of valuable work which he accomplished in his life-time. He was an alienist of note, and paid special attention to the inter-relation of crime and anthropology. He studied very carefully the anatomical characteristics of criminals, perverts, degenerates and prostitutes, and developed the theory that there is an anatomical basis for these conditions, and that certain stigmata were too frequently encountered in these persons to be accidental. He does not underestimate the importance of environment, but brings forward very forcibly the value of anthropology. He gives great attention to measurements of different parts of the body, such as the head, skull, neck and legs, anomalies of features, abnormal physiological functions, as smell, taste and speech, and also such points as tattooing. He urges that the treatment of the offender be put on a scientific and rational basis, that is, that he be considered an abnormal individual and be treated as such.

instead of being punished entirely for the crime he has committed, without paying any attention to predisposing causes. This is certainly the tendency today, and he is largely responsible for it.

He was the originator of the theory that genius is merely a variety of degeneracy or insanity, and not a high type of human development. His work, *The Man of Genius*, is a masterpiece, and shows a vast amount of learning in literature and art. He may have carried this idea too far, but but there is a great deal in it.

Criminology is as much of a medical subject as is insanity, but it receives very little, or no, attention from the practicing physician. We should give it more study. The medical profession has never assumed its proper position with regard to this question. It concerns us very closely and the physician should be more often consulted about the handling of offenders. Many criminal laws have been made by, and their administration entrusted to, persons who apparently know little of the principles involved.

Lombroso was born in 1836 and died in 1909, and did valuable work in his last years. A man should do his best work in the latter part of his life, provided his physical strength and



mentality permit. He is constantly acquiring knowledge and experience, and his judgment and insight into matters should improve with age, especially when he has been a careful student and keen observer, unless this be interfered with by senile changes. This was true of Lombroso, and he did some of his best work in his sixties. He was a precocious child and a man of genius, and an exception to his ideas concerning such persons. He was highly original and a close observer, and his writings showed that he possessed great learning in other than medical lines. He is perhaps best known to American physicians on account of his work on pellagra, for which he deserved great credit.

Many physicians become famous on account of special skill in diagnosis or treatment, build up a large practice, and are successful, but if they are original, do not show it by valuable results. When such a man dies, we ask "What did he accomplish?" And we must answer, "Nothing for posterity." The answer would be far different for Lombroso, and we must honor him for it. His works that have been translated into English, other than the one mentioned above, are: *The Female Offender and Crime; Its Causes and Prevention*, and both are well worth a careful reading.

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#### CREDIT WERE DUE.

Great scientists and physicians, as a rule, receive credit for their work after they are dead, but how few receive their due while living? Two shining examples of this are Reed and Carroll. Few among the laity, even now, ap-

preciate the value of their services. Koch, Metchnikoff and Ehrlich lived to see appreciation. If Ehrlich had done nothing but discover the use of salvarsan, he would be immortal in medical circles.

Two great fields of work lie open that present difficulties which will soon be solved. Pellagra, that great scourge of Italy and the Continent, and which has become one here, is being carefully studied by some of the brightest medical minds of today. Sambon has probably solved the question of its transmissibility, where the great Lombroso failed. The fact that the Simulium does not exist in all localities in this country where there is pellagra does not disprove his theory that this insect may, and frequently does, transmit the infection. In these regions some other insect is probably guilty. The facts gathered by him seem to me to be conclusive. If his reasoning be correct his work proves that the disease is at least infectious and will very likely lead to the eradication of the disease.

Shock is, no doubt, the *bete noire* of major surgical operations. The man who will discover a method of eliminating it will confer a great boon upon humanity and should be, and will be, famous. Crile's work has not as yet been appreciated, even by the medical profession. His results are remarkable and should be in general use by the surgeons. His method is not difficult of application and will be the means of saving thousands of lives.

P.

## ANAESTHESIA AND MAGNESIUM SALTS.

There are a number of factors in the performance of major surgery, other than the operation itself, that are of great importance, and not the least of these is the anaesthetic. The amount of ether and chloroform used must be considered, as accidents due to them and untoward sequellae are not rare. The substitution of nitrous oxide for them is an improvement, and materially lessens the danger. The use of a general anaesthetic is desirable, as the average patient, at least, should not be put to the strain of a major surgical operation while conscious. The element of physical fear cannot be done away with, and tends to increase shock, as Crile has shown. The discovery of a substance which, if injected into the system, would not be injurious, or only very slightly so, and would so intensify the effect of the gas used that a minimum would be needed to put the patient to sleep and keep him there for the time required, would be a distinct advance over the present methods. The magnesium salts apparently have an effect and are being carefully studied by several experimenters. Their use for this purpose will probably, some day, become general. They seem to cause both a decided motor depression and a general diminution of the sensibility of the mucous membranes. On account of the former effect they have been used successfully in tetanus. This work will be well worth following. P.

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Nearly every community has made some provision for the prevention of the spread of contagious diseases. In

the larger cities where the people are accustomed to having many things decided for them by the city fathers, it is not difficult to enforce these laws. Every citizen understands that any infraction of these laws means trouble for him, and as a result he complies with them whether he believes in them or not.

However, the health officer in the small town does not have such easy times. Generally there are no hard and fast rule that he can work by and he has to use his best judgment. The laity complains about his rulings because they cannot see the reason for placarding a house and advertising the fact that some member has a contagious disease. They feel humiliated and in many instances their friends feel that they must visit the sick, and break quarantine in order to prove their friendship, thereby proving their curiosity and ignorance. Sometimes physicians take delight in talking about him and criticizing his work. This is a pretty bad state of affairs, and when one remembers that the health officer is usually a practicing physician, who has made some sacrifice in accepting the position, it will readily be seen that it is very hard for him to enforce such laws as he has, for the protection of the community.

A good many people can see no reason for many things they are asked to do at these times, and if we, as physicians, will go to the health officer and find exactly what he is trying to do, and then endorse his plan, there will be but little complaint on the part of the laity.

Of course, there is a difference of opinion among the physicians in most

communities, but at such times they should not be expressed. Try to remember that the health officer is blamed if an epidemic continues to spread or lingers, and also, that almost the entire community will claim credit for a short seige (this may be true but not likely), and that without the support of the profession it is impossible to accomplish anything.

Remember that the health officer's pay is not commensurate with the amount of service rendered, that his position was probably thrust upon him, and that he is making his full share of enemies on account of this antagonism to public opinion.

Remember, too, that if your ideas are best, that he will probably resign in your favor. So for the benefit of the community in which you reside, either accept his job or O. K. his work.

VON A.

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### FEE-SPLITTING.

The evil of fee-splitting has been taken up by many of the state societies, and in every instance the practice has been condemned in no uncertain manner. Judging from certain State Journals the practice is widespread. This is indeed difficult for a right minded physician to believe. If such be the case it is an awful commentary on the honor and integrity of a so-called learned profession. A physician accepting a fee which he has not earned, has betrayed a trust, and is not worthy to associate with even highway robbers. The robber assumes great risks, and is at least possessed of one quality which is admired, courage. The fee-splitting physician or

surgeon takes advantage of the patient at a time when he is distressed "in body, mind and estate." This requires no courage, but evinces a blunted moral nature that would not hesitate to do criminal acts but for the fear of detection.

Be it said to the credit of the physicians of New Mexico that this evil has not entered her domain.

E. B. S.

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### SEX HYGIENE IN CHICAGO.

The following editorial, taken from the Lancet-Clinic will be read with interest because both sides of the question are presented from able sources:

The teaching of sex hygiene is to be tried out in the Chicago schools. It is fortunate that the stage is large enough in this instance to give us abundant opportunity to judge of each act and scene in the drama. The Board of Education has appropriated \$10,000 wherewith to pay specially selected teachers. The views of the advocates and opponents of the plan are so diametrically opposed that it is interesting to note them and subsequently to verify their accuracy or falsity in the light of the results that are sure to be attained in a few years:

"The teaching of sex hygiene will fill the minds of children with word pictures and their imaginations with fantasy," said the Reverend Father J. W. Melody, Professor of Moral Philosophy in the University of Washington.

"Mental enlightenment does not act as a moral deterrent. Life is a continuous warfare between the higher and the lower faculties. The only hope is a sense of responsibility to a per-



sonal God. The will is that psychology something which enables us to subject those lower instincts. A grave danger lies in the teaching of sex hygiene. I do not adduce from mystic theology, but from psychology. The way to avoid danger is to flee from it and refrain from discussing it. I do not envy Mrs. Young her responsibility."

To this Dr. T. Belfield replies:

"Promiscuousness in both sexes is a natural instinct. The public sentiment, from an examination of laws, seems to be that man should be given personal sex liberty. The church is not responsible for the fact that monogamy exists among the peoples of Indo-European origin today. Christ never heard of a civil monogamous marriage. Illinois spent \$1,000,00 last year to improve crops and not one cent to improve the crop of children, who, from a sordid economic standpoint, are the most valuable asset we have. Sex improvement must come through the intellect. Sentiment in Illinois has not crystallized to the point where we are willing to curb the propagation of the defective. As a result, the defective population is increasing three and a half times as fast as the normal population."

The intelligence of these champions, their power to reason correctly, is to be put to the proof immediately. It would be interesting could we have a similar test, with an accurate observation of results, both physical and moral, in a village, say, of six or eight hundred people. This is a vastly important question, and it is highly desirable that it should be settled as accurately as possible.

## HOW TO AVOID THE AUTOMOBILE BACK.

The automobile is coming into such general use that any advice to its users is of general interest. A great many people in cranking their cars, strain their back or "drop a stitch" and if this is once started it usually happens more easily another time. Many people, after riding for any length of time, are tired in the back when they get out. If this is kept up, the pain or weakness increases, until many times the person is laid up with what is called lumbago or rheumatism. Both of these conditions are commonly due to the wrong way of using the muscles of the back. In cranking, keep the back straight, like "the oarsman's back." Bend from the hips, snapping the crank over by straightening at knee and hips, but do not bend at the middle, or the waist line. In sitting in the car keep the back straight also. Get the hips well back against the back of the seat, and, if the upholstery make the shoulders droop, put a robe, a cushion, a book, or anything at the hollow of the back to prevent this. Do not slouch in the seat and do not sit on the lower part of the spine. This reverses the normal curves of the spine and must mean strain, with at times much crippling.

## CARELESSNES AND DIPHTHERIA.

The office of the Georgia State Board of Health at Atlanta was recently compelled to close by an epidemic of diphtheria among the officers and employees. Ten persons were affected. Only the secretary and one other physician escaped the disease. The

secretary of the board is reported to have said that the disease was contracted from specimens which were so carelessly prepared by the physicians who sent them in that no indication was given of what the package contained. Ordinary envelopes, it is said, were sent in containing portions of membrane placed between pieces of cardboard or paper; other envelopes contained cotton swabs which fell out when the package was opened. Even if this were not a violation of the postal laws, it is almost inconceivable, says *The Journal of the American Medical Association*, that physicians could be so careless as to send in this manner material as deadly as dynamite or an infernal machine. It not only constituted a danger to the persons in the office of the health board, as the sequel proved, but it was also a menace to every one handling the mail *en route*. The responsibility of physicians in handling such material is great and the utmost precaution should be observed.

ing too heavy a burden on the sense organs, through which exhaustion of the central nervous system follows; among these conditions are noises, a perpetual round of hurry, and unending sequences of incidents exhausting the attention, to which are superadded the physical discomforts of vitiated air and effluvia from human beings and waste organic products, besides offensive gases and infection-laden dust. To attain old age we have to relieve ourselves from worry, strains and anxieties, withdraw periodically from the whirl of effortful existence, modify our diet, omit the use of stimulants and narcotics, and spend reasonably long periods of time under pleasant conditions in practical retirement. Above all, amusement should be simplified and accepted rather than sought after. Only vegetable and semi-animal foods should be eaten.

#### HOW TO ATTAIN OLD AGE.

The chances of attaining old age are much greater if we live much of our life in fresh country air. Statistics go to show, according to Dr. Dezso of Budapest, that the fourth generation of the town dwellers is unknown; but enough is currently reported to make the conclusion inevitable that the sine qua non of longevity is a certain amount of time spent in the country. The city child is subject to a number of disturbing conditions other than mere absence of creature comforts, which undermine the constitution by throw-

President H. B. Kauffmann announces the appointment of the following Committee on Public Health and Legislation of the New Mexico State Medical Society

Bernalillo . . .	J. W. Colbert, Chairman
Otero . . . . .	J. R. Gilbert
McKinley . . . . .	W. E. Handy
San Miguel . . . . .	E. B. Shaw
Dona Ana . . . . .	T. C. Sexton
Santa Fe . . . . .	W. H. Lloyd
Curry . . . . .	J. Foster Scott, Jr.
Quay . . . . .	F. W. Noble
Luna . . . . .	P. M. Steed
Chavez . . . . .	C. F. Beeson
Colfax . . . . .	L. L. Cahill
Eddy . . . . .	F. F. Doepp

Announcement is made by the Albuquerque Sanatorium that Doctor LeRoy S. Peters, formerly associated with Doctor E. S. Bullock in the New Mexico Cottage Sanatorium, is now associated with Doctor A. G. Shortle in the medical department of the Albuquerque Sanatorium.

## County Society Notes

### BERNALILLO COUNTY.

The Bernalillo County Medical Society met in regular session in the Commercial Club on November 5th.

Doctor J. W. Colbert read an interesting and instructive paper on Pellagra. This was illustrated with stereopticon slides. The paper was followed by a general discussion.

Doctor G. H. Fitzgerald, a former resident of Albuquerque and an honorary member of the Bernalillo County Medical Society, having returned to New Mexico to practice, was voted an active member of the Society.

At the request of the secretary of the State Society, pages 8, 9 and 10 of the October number of the New Mexico Medical Journal were read in open meeting and it was voted that the society comply with the request of the House of Delegates regarding the payment of dues.

Doctor Hope, Doctor Wroth and Doctor Rice were appointed a committee to arrange for an American Medical Association lecture. The committee selected Doctor R. E. McBride of Las Cruces, New Mexico, to deliver the lecture.

FRANK E. TULL, Secretary.

## Original Articles

### PREVENTIVE SURGERY.

J. W. COLBERT, M. D.  
Albuquerque, N. M.

Address of Chairman of Section on Surgery, 32nd Annual Meeting of the New Mexico Medical Society, Albuquerque, N. M.

In the treatment of all diseases everywhere in the human body, surgery must be regarded as a choice of evils, and in its adoption as a remedy for disease it must be demonstrated to be the lesser evil. Surgery usually contemplates mutilation as a remedy—the removal of some organ, or member or tissue. Ample justification for such mutilation must first be had. We all know that the least of the atoms has its definite purpose to fulfil in the harmonious whole of Nature's plan. We have been taught that when a limb was injured, or a hand mangled to make every effort to save the part. Why should not these saving methods apply equally to the pelvic organs?

There is a too prevalent opinion among the laity that a surgeon delights in the opportunity "to cut and slash," as they express it, and surgery has long been termed "the reproach of medicine," knife knowledge used to cut the Gordian knot which might be untied by a patient and wise use of long acquired clinical wisdom. Do the facts justify such opinions? I do not believe it. But there is an opprobrium resting on modern surgery—and it is the fact that it ministers too much to the emer-



gency phase of disease. Patients come to us when they are very sick and our attention is drawn to that acute phase. The time must be when medicine is preventive more than curative. When our patients come to us we ought to make careful search for disease, and thus avoid unnecessary operation. This is Preventive Surgery! It should be stated as a truism that a surgeon should be first of all a wise physician. His greatest endeavor should be to have the fewest operations to his credit, instead of the greatest number. The conservation of normal pelvic organs, for example, and the restoration to health of diseased ones by medical means whenever possible should be his highest aim.

Given the present state of our therapeutic knowledge, the removal of organs from the human body is a confession of our limitations. We remove them because up to the present we know of no other way either to prevent or to correct the pathologic conditions which face us, but we are in duty bound to relegate such radical procedures to the domain of emergency work which justifies itself only in extremity.

The menace of modern surgery is the horde of half equipped and untrained individuals who have invaded the field without the wisdom or experience to appreciate their limitations, or the conscience to recognize the enormity of their sins of omission and commission. It is a fact we cannot overlook that where you find a community of young surgeons, and by that I mean surgeons young in surgery—and where you find that class of men who dabble in everything, surgery, obstetrics, and

what not, you will find that many unnecessary operations are done, that is, many patients are operated on when what they really need is medical care. A young man just finished his hospital internship, for instance, often announces himself as a specialist in surgery without having had sufficient training to justify that step. He frequently performs unnecessary and even unwarrantable operations. He classes every operation from which the patient recovers as successful, regardless of whether any good has been accomplished or not. We must admit that there is far too much of this thing of going for a few days or two or three weeks "to see the Mayos" or "to see Murphy", or to Vienna for a short stay, and then coming back a full-fledged surgeon. Let us get to the point of thoroughness, to the point of broad fundamental culture, to the point of careful manual training—and away from the irresponsible promiscuity that now too much characterizes the surgery of this country. Operators are numerous, far too numerous; pathologists and diagnosticians are few, far too few.

Every patient submitting his, or her, case to the surgeon, in the absence of urgent necessity for immediate operation, has the right to expect, and should receive, an exhaustive examination for diagnosis, and thereupon a mature prognosis after a carefully considered detailed history.

A great deal is said about conserving the pelvic organs, and much is said about complete hysterectomy and the removal of everything—but we hear very little about a very essential feature, one regarding which all thorough

surgeons agree, and that is to make a proper diagnosis, and to know before hand whether any operation should be done. More patients are injured not because they have the ovaries and tubes removed, or because any conservative surgery is done, but because they were operated upon at all when operation was not indicated. They were often simply neurasthenics—patients who belonged to the neurologist who needed common sense, out-door life, the rest cure, or even Christian Science, or anything else you choose, except to fall into the hands of the surgeon.

Operations upon neurasthenic and nervous invalids, and for epilepsy and insanity, always demand the nicest surgical judgment and a wide knowledge of the pathology of nervous disorders to save surgery from being discredited. It should be generally conceded that nothing short of actual disease in the organ to be operated upon, with grave incident symptoms, or apparent risk to life, warrants surgery for such invalids. What gratification or satisfaction is it to a woman, for example, to appreciate that she has escaped with her life, after a serious operation only to discover that she continues to be an invalid? How many of these patients who have been "successfully" operated on pass on to the family physician to the neurologist, or perhaps to the next surgeon for further attention.

The ease and comparative safety in which organs like the uterus, tubes, and ovaries can be removed has invited their far too frequent removal in cases in which neither the symptomatology nor the gravity of the conditions would justify such procedure.

There are thousands of women who

are suffering from the results of unnecessary surgery in the pelvis. Than that of the poor, miserable woman, undergoing the nervous changes following the entire removal of both ovaries, for example, there can be no sadder state in life. Despondency, the feeling of utter hopelessness, restlessness, discontent, inability to engage in former duties or pleasure, bitterness, and fear of the future, together with loss of power to control the emotions, are always present. Surely such victims of mistaken judgment should invite a plea for Preventive Surgery. Were surgery of such extent, and involving the same mutilation of the sexual system to be commonly applied to the male organs, the real import of the subject would be apparent. But no—it is unusual for the genitals organs of the male to be sacrificed for any condition save malignant disease. In inflammatory disease of the testicles or vas deferens, removal, as a rule, is about the last thing thought of. And why should not the repressed sex be entitled to some consideration as well. It is distinctly no advantage to the woman to exchange one undesirable condition for another. The belief in the mind of the woman that she has lost the generative function—the delicate essential of womanhood so peculiarly inherent in the sex—that she has lost some of the finer sensibilities of the sex, that she is unlike other women, is in itself to most women productive of much mental anguish. The elder Emmet expressed the hope that future generations might be allowed to go uncanceled. We must wine out and eliminate gynecologic surgery for the cure of vague nervous and neurasthenic symptoms; by so doing we can add in-

finite credit to our profession, and do much to preserve to the woman her womanliness. We have had far too many stars in this often tragic drama of the surgical arena. Many of the makers of gynecology could see no avenue to success but that made by the radical removal of all that lay in their path. In this day it is not so popular to remove ovaries for every pelvic pain, but, we must admit that many healthy, or but slightly damaged tubes are still being sacrificed on the altar of radicalism.

Plastic operation upon the uterus and vagina, which can be so helpful when indicated and properly performed, are being discredited by imperfect and unnecessary operations.

The classical trachelorrhaphies are rarely, if ever, indicated today, except in recent injuries and tears of the cervix uteri, yet we are constantly hearing of the performance of the operation. More than a decade ago, Emmet himself conceded that his original operation for pathologic conditions following laceration had had its day, and suggested for it honorable retirement to a few well-selected cases.

The appendix is frequently removed for insufficient reasons, just because it is such a common offender that people are very ready to accept a diagnosis of appendicitis on a very small array of symptoms.

The floating kidney is often anchored when, because of a general ptosis of the abdominal organs, there is no possibility of relief.

Gastroenterostomy was only recently spoken of as "the great western fake" because it had been performed for all manner of stomach symptoms, when stenosis did not exist, or when the op-

eration could not rationally be expected to do any good. Every surgeon knows of some unfortunate victims who regret that the operation was not fatal, because it not only failed to relieve the original symptoms but caused many new ones by disturbing Nature's anatomic and physiologic arrangements.

The exploratory operation is too often not warranted—it is too often a short cut to the solution of the difficulty.

Minor operations are done every day when a positive necessity does not exist—under circumstances, for instance, as influence the comfort of the patient, or for cosmetic effect.

"Save every particle of tissue possible" is a good principle. In order to emphasize this, Wyeth of New York, while examining an injured hand in a clinic, remarked in an exceedingly positive manner:—"Surgery does not carry with it the idea 'to lop off,' but rather 'to build up.'" The simplest way to treat a badly injured limb is "to lop off," but the simple and direct method, if it involves too much sacrifice may not always be best for the patient. In certain cases, 'tis true that amputation is slightly safer—but what patient will not willingly accept a small chance of risk of life, rather than the certainty of loss of limb? In all accident cases it is certainly the duty of the surgeon to give the patient the benefit of the doubt, and to make an earnest effort to save the limb. Good functional results may be obtained against great apparent odds—and a saved limb is certainly preferable to an amputation stump.

The purpose of this paper is to urge physicians to prepare themselves by a careful diagnosis and every accessory



to ascertain in advance whether it is wise to operate in a given case, to combine the science of the diagnostician with the art of the operator. It must be admitted that errors of diagnosis are too often due to careless and indifferent examinations, to insufficient time and want of due consideration of all evidence that might be obtained. False deductions are made from improper appreciation of pathology. A great surgeon is not a mere mechanic; he is first of all, a good physician, and a trained clinician as well.

We should not be satisfied to just have our patients recover from operations. Surgery that does not benefit, and cure the patient is harmful, lessening confidence in surgery and surgeons and often deterring those with serious surgical conditions from submitting to necessary operations; irrational surgery is debased surgery, a misapplication of the art; unnecessary surgery is criminal, harmful surgery—and such surgery injures both patient and physician and creates misery.

A surgeon is consulted presumably on account of his attainments, his experience, and, let it be hoped, his honesty. It is a compliment which no man can ignore, and under these circumstances one who does not give the best of all he has is unworthy. He owes his best to himself, to his consultant, and most of all to his defenceless patient. Something more is expected in professional life than in business. Be he lawyer, teacher or physician, his first, his whole interest, should be that of his client, his student, his patient. The medical man starts out in life to serve his fellow-men, and the better the service he can render the greater his success.

We medical men, however, are only human beings, and perfection cannot be expected of us—but we have the health and lives of the people under our care and should therefore attain the highest degree of excellence attainable by man. It is the privilege of every graduate in medicine to aspire to become a surgeon, but the surgeon requires special training and no one should be allowed to practice surgery who has not had this training. I am aware that many of you will regard this view is idealistic, utopian, and quite impracticable. But we all admit that evils do exist in the profession, and as a duty to ourselves as well as to the community, we should give them publicity and stamp them with our disapproval. The time is coming when this will resolve itself into an economic problem and one which, if we do not settle for ourselves, the public will settle. When the laity wake up they are liable to have drastic laws enacted which will overshoot the mark and be a serious handicap to legitimate surgery. A year or so ago a bill was introduced in Colorado that was intended to put a curb upon the unnecessary operations for appendicitis—freak legislation of course. I don't know what became of the bill, but I do know that the mere fact that such a bill was framed shows that the public is taking cognizance of these things.

I have an abiding faith in the high purposes and aims of the profession, and am sure that instances of unnecessary interference on the part of the surgeon is but one of those unfortunate events incident to all great movements—and my plea—gentlemen is for a careful, well-considered, ripe surgical judgment which comprehends all the es-

sential details that may bear on a case, thus eliminating to a very large extent these evils, and giving Preventive Surgery the important sphere it deserves.

### REPORT OF A CASE OF FAILURE OF RESPIRATION DURING ETHER ANAESTHESIA.

By DR. MORRISON,  
Great Bend, Kans.

Read before the annual meeting of Santa Fe Railway Surgeons, Topeka, Kan., October, 1913.

The patient was a young woman, 19 years of age. Her family history was good. Her personal history was also good. She had never had a serious illness of any kind. For about two years she had been troubled by a simple catarrhal appendicitis. This affection had rarely caused her to go to bed. Physical examination of the heart, lungs and kidneys had revealed normal conditions of those organs.

On the afternoon of the day before the operation, patient entered the hospital and had the usual preparation. The next morning she was operated on. The appendix was easily located and brought up. It was removed and the wound was closed in the usual manner. The wound was dressed and the patient was removed from the table within 20 minutes from the beginning of the operation.

The anaesthetic was administered without incident until the operation was well under way. At that time the abdominal wall became rather rigid, the breathing became irregular and stertorous. A marked degree of cyanosis developed. In a short time breathing became better, the cyanosis disappeared and the anaesthetic was resumed. At the close of the operation,

patient appeared to be in good condition. She was transferred from the table to her room on another floor and was placed in bed. I was dressed and ready to leave the hospital when a nurse called me and said that the patient was not breathing. This occurred about ten minutes after she had been taken from the operating room.

The patient was found completely relaxed, eyes partly open, under jaw dropped, face bloodless and countenance having the appearance of death. Pupils were normal in diameter, no reflex. Pulse was fair and about 100. Artificial respiration was begun but the air did not seem to enter the lungs as freely as it should. The tongue was pulled forward. This did not help matters. The head was brought to the edge of the bed and permitted to hang down. In this position it was easy to conduct artificial respiration. The lungs were filled with air and it was freely expelled. At intervals, the respiratory movements were stopped but as the patient showed no signs of breathing they were resumed. About one hour after the failure of respiration, the sphincter ani was dilated thoroughly. There was no more response to this procedure than there would have been from a cadaver. Four hours after the beginning of artificial respiration, she breathed in an irregular and shallow manner for one or two minutes and then ceased. Artificial respiration was again resumed. After this, she occasionally breathed a few times in a very unsatisfactory manner. After the expiration of more than six hours from the time of her failure of respiration she was again able to breathe with her head hanging down but for a half hour stopped breathing when her head was raised. In about two more hours she regained

consciousness. At no time during the suspension of respiration did her pulse go above 115. It was often very feeble. The pupils never dilated.

The next morning the patient said that she felt very well excepting that her sides were very sore down near the edge of her ribs. An uneventful recovery followed.

There are no new lessons to be learned from this brief experience. There are a few old ones which are recalled and emphasized. They are: *First.* Be very careful with the anaesthetic when the patient does not take it well, and remember that notwithstanding the comparative safety of ether it must be handled with extreme caution. *Second.* Have the patient kept under the closest observation from the time of leaving the table until the return of consciousness. *Third.* Should respiration fail, remember that the game is not finished until the end of the last half of the last inning.

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### THE DIFFERENCE IN THE ATTITUDE OF EASTERN AND WESTERN PHYSICIANS TOWARD THE TUBERCULOSIS PROBLEM.

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By Alexius M. Foster, M. D.

Physician-in-Chief, Cragmor Sanatorium, Colorado Springs, Col.

Read before the joint meeting of the New Mexico Medical Society and the New Mexico Society for the Study and Prevention of Tuberculosis, Albuquerque, N. M., October 4th, 1913.

There seems to be a rather growing tendency on the part of Eastern authorities to disregard entirely the claims put forward by the advocates of the climatic treatment of tuberculosis.

Basing their opinions on the evidence of men like Dr. Flick, who visited this country thirty years ago, and on the failure of cases sent out here without sufficient funds, and without proper direction, or care while here, they have reached the conclusion, either that there is absolutely no virtue in our surroundings, or that the advantages are so slight as to be negligible. Never having visited this country, they haven't the faintest conception of the beauty of our climate or surroundings. Many no doubt still picture us in the primitive days of cattle raising.

The Western men resenting this attitude, have either kept silent, or have become so vociferous in their claims as to discredit them by their clamor. And then too distances are so great out here, that there is very little opportunity for getting together and reaching a unanimity of opinion and policy.

If we are ever to re-establish our position, it will only be by presenting such a large amount of accurate, scientific data that it cannot be disregarded or denied.

Out here, away from the spur of ardent competition, there is naturally the temptation to be satisfied with what our own observation teaches us, and to allow the Easterners to continue in their erroneous opinions.

We have only to examine the sources from which we derive our patients, however, to realize that not only to the country and the cause we represent, but also from a selfish standpoint, we owe a more active interest in securing a more general acceptance of our views.

A great majority of our patients come from the smaller communities, where the physicians still hold the idea



that all that is necessary is to advise the patient to "go West." Also a large number come through the advice of those who have regained their health here. The minority is represented by those sent by authorities who recognize our claims, or who feeling that patients have tried everything else without success, may as well be shipped out to us as a last resort. If we sit by and allow such conditions to continue, the new generation of medical men, reading the articles in journals and text-books denying the value of climate and altitude in the treatment of tuberculosis, will readily adopt these views. It is easy to understand why so many prominent Eastern authorities have formed the opinion they have.

In the first place there is the lack of sound scientific explanation for the superior benefit claimed by the advocates of climatic change. And therefore it is very easy when the question is largely one of theory, to form theories in harmony with ones in circulation. I would not claim for a moment that these men are influenced by selfishness. It cannot be called selfish of them to want to keep patients under their own supervision unless they have unquestionable proof that a change is necessary. It might be well to consider briefly the arguments most commonly used by our Eastern friends.

First, that there is not sufficient definite scientific proof of the value of certain climates and altitudes over others, to justify the sacrifice and inconvenience of the change.

We claim that there is already quite an amount of unquestionable proof along scientific lines, but we acknowledge that there cannot be too much and are striving with the limited means at hand, to provide more.

Second, there are certain classes of

cases that are distinctly harmed by high altitudes.

In my brief experience I have yet to see such cases, when the proper regime is followed.

Third, that cases arrested near their own homes, in a similar climate, have a better chance of remaining.

To my mind this argument only admits the advantage of climatic treatment.

Fourth, that homesickness is apt to affect any advantages of climate.

From my experience, homesickness in patients who show any improvement is so rare as to be negligible.

Finally, it has been urged by all authorities, East and West, that it is a great mistake to send patients to another climate insufficiently provided with funds to carry them through five or six months of proper treatment.

To my mind, the anxiety to prevent the heart-rending scenes of a few years ago, when our health resorts were overrun with poor devils, not only dying with tuberculosis, but literally starving, has led to the belief that climatic treatment must be forever left out of the account in the care and treatment of the indigent consumptive. The longer I live in the West and the more I think of my experience in the East, the firmer becomes my belief that such should not be the case.

Fortunately before this belief became general, such places as the Government sanatoria, the Printers' Home, the Valmora Industrial colony, the Agnes Memorial Sanatorium, the Woodmen Sanatorium and others were established, and they are all far more than justifying their existence. However, it is not along such lines that in my opinion the greatest opportunity lies.

Some four years ago, on my first

visit to Colorado, I went to the Y. M. C. A. Industrial Farm near Denver. At that time I was in charge of a farm colony near Baltimore, Md., and was particularly interested in such projects. I shall never forget the impression I received. The wonderful scenery, invigorating climate, abundance of water and fertile soil seemed to make conditions perfect. When I thought of the difficulties we had overcome in Maryland, and the success we had achieved, I marveled at the failure of this project. Neglected crops and fields, run down buildings and a few far advanced consumptives, who should have been in a hospital instead of a farm colony, all pointed to the mistaken management, and gave the explanation for the failure. I felt then, and am still more firmly convinced now, that with proper handling, such institutions would not only be self-supporting, but would prove of inestimable value in handling the problem of caring for the indigent consumptive.

If such colonies were established in our irrigated districts, and suitable cases sent to them, many of our failures would be avoided. It is generally admitted that the weak point in the plan so far developed of combatting tuberculosis is the care of arrested cases. The patient leaves the sanatorium, hospital or dispensary class, but with his disease merely latent, and finds himself suddenly on his own resources, in competition with the well and strong and with his surroundings practically the same as those which resulted in his breakdown. Strange to say a remarkable number of such cases are able to hold their own. But

the proportion of failures is entirely too large and aside from any humanitarian argument, the waste of money spent in their care is unjustifiable.

If we can offer out here an economical and practical way of solving this great problem, we will broaden the scope of our usefulness very materially.

Most of our business and professional men came out here originally in search of health, and there is no reason why we should not offer those in agricultural occupations the same opportunity.

If such a plan is started on a small scale and proved to be practical, we will not only be able to silence the unjust criticism of our Eastern brethren, but we will start a controlled immigration which will be of great benefit to the country.

I have purposely made this paper brief, in order to give ample time for discussion that I may learn the views of others of more experience in this part of the country.

Having been in tuberculosis work for some years in the East before coming out here, I feel that I am in a fortunate position to judge of the advantages our climate and altitude afford, as well as to note the differences in altitude between the two sections. I feel strongly the necessity not only for a greater recognition of the advantages the West has to offer, but also for greater unanimity in the claims and assertions made by representative men in this part of the country.

There is an organization called the Sanatorium Association, made up of active sanatorium workers, which meets

conjointly with the National Association. It seems to me that possibly it might be wise for us to organize a similar branch where we might discuss problems particularly affecting us.

The points upon which I would appreciate discussion are these:

What classes of patients, if any, are we justified in advising against changing climate, or to limit the question, are there any patients who under proper condition will be harmfully affected by our climate or altitude?

Does homesickness play any appreciable part as an argument against change of climate?

Is it true that arrested cases in this part of the country stand a poorer chance of remaining well on their return to the East, provided that they continue to take proper care of themselves?

Are we fully justified in upholding the efforts being made to prevent all the wealthy classes from seeking the benefits our climate affords?

In what way can we best re-establish our claims and again assume the position formerly conceded to this region?

#### A NEW METHOD OF TREATMENT FOR TUBERCULAR OR MIXED INFECTION OF THE LYMPH NODES OF THE NECK

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Read before the 32nd Annual Meeting of the New Mexico Medical So-

ciety, Albuquerque, N. M., October 2 and 4, 1913.

When we operate for tubercular or mixed infection of the cervical lymph nodes, we desire first to remove all the tubercular or infected material from the body so as to prevent further infection. We desire to prevent the danger and annoyance of leaving few or many infected glands, which a few weeks or months hence will demand other operations and further scarring. We desire a wide field for operation, that will permit free inspection of the anatomy as we dissect, thus enabling us to avoid blunders, of cutting important structures or leaving unnoticed nodes. We like such an exposure, that no tissue need be stretched as we cut; for stretching distorts the anatomy and obscures the identity of the tissues stretched. We desire (especially in the case of female patients) to have the scar so placed that it will be least noticeable and particularly that the scar is hidden from an observer looking from the front. For these reasons the following operation seems to me to be the most advisable and complete thus far advocated.

The operation which I have been doing and which I here illustrate is the one being done at present by Dr. Wm. E. Schroeder of Chicago. It consists of a curved perpendicular incision, commencing a little behind the ear, in the hair line and running downward along the anterior border of the Trapezius, until it approaches the Clavicle, when it sweeps forward in a horizontal direction about one inch above the Clavicle and extends to near its sternal end.

The first cut is made through the



skin, fascia and Platysma Myoides. These structures are easily dissected, by the sharp edge of the scalpel from the underlying parts, commencing below and progressing upward and forward to the under part of the chin. The outer flap is dissected in a similar manner backward so as to uncover all nodes and structures lying beneath the Platysma. During this dissection, we recognize the external Jugular vein and its communicating branch from the anterior division of the Temporo-Maxillary, also the Anterior Jugular, sometimes the Common Facial. It is usually necessary to double clamp and cut some of the veins. Parallel to the external Jugular and a little behind it we find the Great Auricular nerve; but need not fear cutting it, as the anaesthesia resulting from section of it lasts only a short time and no other bad result follows.

In dissecting the anterior flap, we are careful to avoid cutting that branch of the Facial nerve, sometimes called the Supra-Maxillary branch of the facial, which supplies the Depressor Labii Superioris. This nerve runs 1-2 to 3-4 inches below the angle of the jaw and crosses the jaw at about the location of the Facial artery. The cutting of this nerve results in an awkward paralysis of the lip. When dissecting posteriorly we are careful to recognize and isolate the spinal accessory nerve, which emerging from the Jugular foramen close to the spinous process, passing into the under side of the Sterno-Mastoid muscle, finally emerges from under that muscle, at the junction of the middle and lower third. It passes downward and backward into the Trapezius. Quite near the point of emergence from the

Sterno-Mastoid, we find the Superficial Cervical nerve, which runs forward and upward across the neck.

The Spinal Accessory runs through a mass of lymph nodes and may easily be cut in dissecting it from the posterior chain of nodes. Cutting of the Spinal Accessory in its upper portion causes atrophy of the Stern-Mastoid and Trapezius muscles. If cut in its lower portion, it causes drooping of the shoulder. If in doubt as to whether the structure under knife is nerve tissue or not, squeeze it a little with forceps and watch the muscles twitch. The practice is to be avoided if possible.

After isolating the Spinal Accessory, we expose the lymph nodes under the posterior edge of the Sterno-Mastoid, by dissecting the posterior border of that muscle free and retracting it forward. Next the anterior border of the Sterno-Mastoid is freed and retracted, exposing the lymph nodes below it. Especially do we aim to uncover the lymph nodes at the bifurcation of the Common Carotid, which is situated opposite the upper part of the Thyroid cartilage. During this dissection we are careful not to cut the Internal Jugular vein.

After all the lymph nodes are exposed, we note the source of the infection, by the fact that the lymph nodes affected first, have progressed the furthest in those changes, which are due to the bacteria. In the early stages, the lymph node becomes enlarged and contains, if tubercular, numerous foci, that can be distinguished from the remaining glandular tissue. Later these areas coalesce and the nutrition fails giving caseous degeneration. From the first nodes affected we may recognize

the source of the infection and this affects the plan of treatment. The source is most frequently found to be enlarged tonsils and adenoids. If this be the source, surgical treatment of the nodes only, will result in failure unless the diseased tonsils and adenoids are also removed.

It is quite important that we do not dissect out any of the lymph nodes until we have succeeded in laying them all bare to our gaze. When we have done this we find the removal of the nodes much easier.

In removing the nodes we start with those which are behind the Sterno-Mastoid, always using the sharp edge of the knife and being careful to make no traction on the structures we are working upon. Having dissected out the nodes, which are posterior to the Sterno-Mastoid, we dissect out those nodes which are anterior to that muscle and then we remove those which are at the bifurcation of the Common Carotid. Next the submaxillary nodes and the submental are taken out and it will help greatly if we remember that the color of the salivary glands is yellowish and that of the lymph nodes is grayish or grayish pink. All bleeding is stopped by ligation as the dissection progresses.

When all the nodes are out the Platysma and fascia are united by a continuous catgut suture, which minimizes the scarring. For the same reason we sew up the skin incision with horse hair and then we place a rubber drain, about five or six inches long into the lower angle of the wound to remove the serum which will accumulate. Dr. Schroeder uses a cigarette drain; but I think this acts more like a cork than a drain; hence I use rubber tubing. This drain is removed about the sixth day.

The result of this operation is a complete, clean removal of all the cervical nodes, with a minimum of trauma to the remaining tissues and an avoidance of repeated operations later in the history. There is lessened danger of injury to important structures, for we have plenty of room to work and every structure is plainly visible and our field is clean and clear of blood.

The scar is so placed as to be invisible to an observer in front of the patient.

It permits ladies to wear a moderately low necked gown, without uncovering the scar.

Bibliography: Gray, Leidy, Eisen-drath, Dowd, Morris, Cunningham, Ochsner.

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#### CONDUCT OF NORMAL LABOR THROUGH PARTURITION.

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East Las Vegas, N. M.

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Read before the thirty-second annual meeting of the New Mexico Medical Society, Albuquerque, N. M., October 2nd-4th, 1913.

It may seem to this professional body that this subject is a rather common one, to occupy their time in discussion; but the supreme body of our organization still entertains the subject and our best authorities have proven beyond a doubt that the subject of obstetrics has been, and is being inadequately taught and demonstrated in our medical centers.

Therefore as long as the vast majority of our mothers are being and forever will be attended by the general practitioner and as long as cases of septicaemia, postpartum hemorrhages, forceps deliveries, and lacerations are so frequently reported, we believe

there is need for further consideration and it is our object in this paper to stimulate a discussion as we vary somewhat from the textbook teaching and base our remarks upon fifteen years' active obstetrical experience in private practice.

When we as physicians are called on a case of obstetrics, it is our duty to respond promptly, taking with us such things as are required for our patient's comfort, welfare and safety. These should be a hand brush, nail cleaner, green soap or its tincture, bichloride tablets, fl. ext. of Ergot or Ergotol, Quinine, Chloroform, Ether, or both, an inhaler, a hypodermic syringe and tablets, Pituitrin, catheters, silk, silkworm gut or other suture material as we prefer, an assortment of needles, scissors, dressing forceps, artery clamps, Simpson's or some other good obstetrical forceps, a white duck suit or gown, and such other things as the individual physician may choose.

On arriving at the home we should meet our patient with a smile and impart an atmosphere of cheer to the household, and above all, be gentlemen, in the confinement chamber.

We should keep ourselves well poised and self-possessed, maintain a quiet demeanor, manifest a kindly interest in her well-being, and quietly, with the assistance of those in attendance make our toilet and preparation for the examination and see that everything is in readiness for the comfort of the patient.

In making the examination, be gentle, thoughtful and considerate of the patient's feelings and modesty, especially if she be a primipara.

Unless the conditions point toward a speedy delivery, take ample time to be thorough and not appear hasty.

We must satisfy ourselves as to whether the woman is pregnant; this may be done by interrogating her as to the last menses, quickening, etc., and by external examination.

After cleansing the hands from street dirt, it is well to begin by taking the pulse, as by this time the patient has become quieted from the nervous excitability of our presence and the pulse will be as we would expect it for normal.

With the patient lying on her back, first, determine if the uterine ovoid is longitudinal or transverse by placing the hands on either side of the belly, facing the woman and straighten the uterine tumor between them.

If the foetal or uterine ovoid lies parallel with the long axis of the mother, we have either head or breech presentation, if not, we have to deal with a transverse presentation.

Next, face the foot of the bed and determine what is over the inlet, by gently pressing the two hands one on either side of the tumor, down into the pelvis from the iliac fossae.

If we find a hard ball-shaped body it is the head.

If the fingers come together on a soft irregular-shaped body it is the breech.

The degree of engagement can be determined by trying to sway from side to side the part within our grasp; if stationary it is engaged, otherwise not. If the two hands come almost together above the inlet, it means no engagement, no matter what may be the presentation.

Next, face the mother, grasp the fundus between the hands and determine its hardness and we will be able to differentiate between the hard round



head and the soft irregular breech, but, should we find the fundus pushed to one side or filled with the extremities of the child, we may expect transverse presentation.

Then locate the back by laying the hands, one on either side of the belly, and by pressing alternately inward toward the umbilicus with them, the back offers more resistance than can be usually felt as such.

After completing the external examination by palpation, then it is best to auscultate to confirm our findings. These I shall not define at this time as all are familiar with the method.

The accoucheur may or may not proceed with the internal examination at this time, or not at all, but use his best judgment and be governed by the circumstances of each given case as they present themselves.

But, should we prefer to proceed we should complete our toilet by re-scrubbing, cleansing the well-clipped nails, rinse off the excess of soap with clear water, put on the duck suit or gown, immerse the hands in bi-chloride, one to one thousand, for at least five minutes.

In other words, we should be as thorough in disinfecting our hands as we would for an abdominal section, and by so doing follow Garrigue's teaching of 1883 and 1884, which has been the means of saving the mothers of men.

If the accoucheur has recently come in contact with infectious material at an autopsy or operation, or if he has an abrasion of the skin on his hands, labor should be conducted by external examination only, or by the use of rubber gloves, after a very rigid cleansing of the hands.

## PREPARATION OF THE PATIENT AND BED.

If the patient or nurse have not been instructed to make the necessary preparations, after labor is well established, the nurse should be on our arrival.

The patient should have a bath and an enema as soon as labor sets in, to make sure that the lower bowel is clear. If the pubic hair be in excess it should be clipped or shaved, the vulvæ and inner surface of the thighs should be washed with soap and water, giving particular attention to the regions about the clitoris and

The soap should be removed by clear water and the parts sponged with bi-chloride solution one to one or two thousand and covered with a towel wet in the same solution, which should remain on until the physician is ready to examine.

The side of the bed that he prefers should be prepared by covering with a piece of rubber sheeting of one or two yards, over which a bed sheet is spread, but if the rubber sheeting be not convenient to be had, five or six thicknesses of papers may be substituted, and over this is spread a sterile sheet or bed pad or a Kelley obstetrical pad.

The legs of the patient should be protected by wrapping the sheet which has been pulled up from the foot of the bed, about them in such a way as to expose as little of her person as is consistent for the convenience of the examiner.

The physician should go directly from the antiseptic solution to the patient, being very careful not to touch anything that might contaminate his hands.

The labiae should be separated by

the fingers of one hand to prevent the fingers of the other from coming in contact with the margins, while they are passed deeply from above, avoiding the perineal and anal regions, before the labiae are released.

The first thing to notice is the size, shape and height of this pubic arch; next the condition of the cervix, as to the degree of dilatation, obliteration, firmness and character of its margins, also its relation to the axis of the birth canal.

Note whether the membranes have been ruptured, and if not, be very careful not to have it occur during contraction.

If before the end of the first stage, carefully estimate the capacity of the canal and the character of the presenting part, as far as possible in keeping with the stage of dilatation.

Turn the palmer surfaces of the fingers posteriorly, with the thumb outside palpate the condition, thickness and resistance of the perineum.

Should the second stage be well advanced and the presenting part not well engaged, measurements should be taken with a pelvimeter.

After carefully making our diagnosis, we should tell her ALL is well, and if she will follow our directions carefully, she can not do otherwise than have a safe and easy delivery. Do all we can to calm her spirits, remove her fears, dispel her gloomy forebodings, and inspire her with the fact that she has a twofold duty to perform.

Impress on her mind that this is a natural, healthy condition and that motherhood is the highest, noblest and best of all Divinely instituted privileges.

Inspire her with confidence in our ability and intention to do what is best for her.

Do everything in our power to keep her in a buoyant, hopeful, cheerful state of mind, and let her feel our masterful, helpful, encouraging influence, as well as get the benefit of our kindly assistance.

Assume absolute command of the situation and allow no enervating influence, such as the expressions of over anxious friends to influence her. At the same time, keeping our own mental and nervous equilibrium well under control in their presence; and guard against making any definite statements as to the exact duration of labor, because the expert's predictions are often very faulty, even with the head on the perineum; and there is nothing more discouraging to the patient than to be disappointed on the predicted time of delivery.

If anything tending to complicate matters should have been discovered during the examination, it is wise to inform a responsible member of the family for our own protection, being careful not to arouse suspicion on the part of the patient.

In my beginning practice, I followed my college teachings together with Lusk in conducting the three stages of labor, and believed then, and do now, that the best results are obtained with safety to the patient, by not being in a hurry and meddling with them by frequent internal examination and by surgical interference.

In past years, especially at night, I did, as many others do, viz: go to bed and let the patient struggle on in torture, during the longest hours of her life, providing, I thought the time

would warrant it, until the advent of the second stage.

But, time and experience have taught me a much better procedure. To sympathize, encourage and assist the afflicted would-be mother to bear the pangs of labor by every means possible, leading her to believe that she is progressing finely with every contraction, and that I am doing something to make it easier for her from start to finish.

And, it is surprising, to see the energy that can be produced on her part, through the influence of such suggestion, properly, and timely offered.

From my early practice, I have personally favored anaesthesia in obstetrics, but as a beginner only used it as our authors and teachers directed us then, and do at the present time, viz: after the presenting part is bulging the perineum, except in unusual cases; but, as time went on, I began using it earlier and earlier, until during my last 200 deliveries, I have begun its use as soon as my diagnosis was made no matter in what stage or degree of dilatation of the cervix was found, and I have never had any occasion to regret having used it.

#### OBJECTIONS TO ANAESTHESIA.

1st. De Lee of Chicago and Williams of the Hopkins, say that without a doubt, the parturient enjoys a slight immunity from the risk from surgical anaesthesia, and that obstetrical anaesthesia is but a little dangerous.

2nd. They say that anaesthesia weakens the uterine contractions, even under the obstetrical degree the pains are *sometimes weakened* and thrown further apart.

3rd. De Lee says hemorrhage is more profuse in the third stage, but

Williams has not had any such experience, and thinks that when judiciously given, there is no increased danger of that sequela.

#### INDICATIONS FOR ANAESTHESIA.

1st. These authors say it is indicated for *great pain* at the end of the first stage, or in the second stage.

2nd. Great excitability at these periods.

3rd. Tumultuous pains at any stage, especially if the cervix be not dilated, **or if the head be on the perineum, the** idea being to moderate the power of the uterus, and save the cervix and perineum from rupture.

4th. In cases where the woman will bear down in the second stage for fear of the pain in the vulva, an anaesthetic will often calm and sooth her pain and fear, thereby *actually* hastening her delivery.

And I can say that I have never practiced any procedure that has given me more satisfaction than using obstetrical anaesthesia in the first and second stages of labor, and as far as the objections rendered by our authors are concerned, they have been slight, compared to the valuable assistance rendered by its use.

It is true, in a small percentage of cases, the uterine contractions will lessen in power or frequency, or both, so that the anaesthetic will have to be withdrawn for a short time, but in my experience, that does not occur in more than five per cent of cases, and when it does, **as a rule** can be overcome by the timely use of a little Quinine or Pituitrin.

There are no fixed rules in giving it, as each case has to be studied and governed accordingly. But by properly preparing the mind of the patient



in the beginning, and using a minimum amount of chloroform and a maximum amount of suggestion, almost any case may be delivered from beginning, almost unconscious to the pangs of childbirth; all the time being held under perfect control, yet conversant and understanding our suggestions and commands, and at the same time preserving their strength for the expulsive pains of the second stage, which is most gratifying.

And when the members of the medical profession become awake to the importance of the psychological factor in obstetrics, with a little anaesthesia and Quinine, or Pituitrin in the second stage if indicated, forceps deliveries and lacerated crevices and perineæ will be far less frequent, and the obstetrical couch will be robbed of its horrors.

The hypodermic use of H.M.C. has been recommended, and is used by some very good men, but from my interrogations on the subject I have found it to be productive of asphyxia neonatorum and have never had any personal experience with the method.

Spinal anaesthesia is practiced by Morton of San Francisco, and Babcock of Philadelphia, and some of their followers say, with very good results, but I understand that the effect is not always positive in all cases, and as I have had such pleasing results with the above described procedure, I have not felt justified in trying it under the present stage of development for fear of undesirable sequences.

Although I believe Spinal anaesthesia has its place in surgery, yet I have not favored it in obstetrical work, as we can get such pleasing results from what I believe to be a safer method.

After the end of the first stage,

should the membranes not rupture, there should be an examination made for that purpose, under the same strict precautions as first described, considerable care being taken and judgment used in regard to complete dilatation, as rupturing the sack before that occurs, often impedes the progress.

Should we not find deep engagement, the sack should not be ruptured during the height of contraction, for fear of the rush of the amniotic fluid, prolapsing the cord.

It is imperative to auscultate frequently during the second stage in the interest of the child, as the cord may be constricted from some cause, and the child be lost from asphyxia, unless extracted rapidly.

When the head comes on the perineum everything should be in readiness for the delivery, having the bi-chloride solution at hand, a number of sterile towels or cloths, cotton or sponges, to remove and care for the feces that may be expelled at this time, an antiseptic solution containing material for tying the cord together with artery clamps and scissors in case of an emergency.

When the presenting parts begin to bulge the perineum the anaesthetic may gradually be pushed to the surgical degree, as the time is usually short and the pains excruciating without its use; but by its use the physician has everything at his command, and can control the maneuvers of his patient, and protect the perineum by preventing a rapid expulsion, thus holding the child back and letting the muscles tire and relax, and at the same time by the use of a sterile towel applied over the anus, pressure being directed upward and forward, to favor extension of the head and make

it lag the symphysis; then at the proper time let it glide through the vulva between the pains.

There is some objection to trying to slip the vulva over the head, lest at an unguarded moment (unless the patient be well under the anaesthetic) she make a sudden expulsive effort and deliver the head, thereby putting the perineum in danger of rupture.

As soon as the head is born, withdraw the anaesthetic and pass a finger to the neck in search of the cord, and should it be found, it should be drawn down and passed over the head, but in case it cannot be on account of being too short, it should be clamped and cut between two artery forceps and the child immediately extracted.

In case the shoulders delay the coming, the chin and occiput should be grasped in the two hands and downward traction made, until the anterior shoulder appears under the pubic arch, then, by upward extension as with the head, the posterior shoulder will be delivered.

Should the body stick, hasten the delivery by traction on the head, instead of hooking the fingers in the axilla for fear of injury to the brachial plexus with subsequent paralysis.

In case the child begins respiration, the cord need not be tied until it ceases to pulsate, otherwise, clamp, cut and begin resuscitation at once.

When everything is well, wrap the child in a flannel, place in care of the nurse during the third stage.

In the third stage, the attention should again be given to the mother, placing the hand on the abdomen to note the contraction of the uterus which should be firm, and as long as it

remains so, there is little or no danger of hemorrhage, unless it be from a lacerated cervix or perineum.

If all is well there is little to be done for from five to thirty minutes, but to watch the action of the uterus and patient. Usually by that time the secondary contraction will come on, the fundus of the uterus rise up, the mother show evidence of pain, and after a few such contractions the placenta is forced into the lower uterine segment or vagina, and the pains stop.

Should not the placenta come away spontaneously, as it does not in the great majority of cases, the physician may give the fundus a little kneading to insure good contraction, and then by gentle but firm pressure, using the uterus as a piston, force it down in the axis of the second canal together with an effort on the part of the patient, to call the abdominal muscles into play, it can nearly always be expressed without much trouble.

The writer, however, has found in some given cases, following the birth of a small child where the perineal muscles have not been severely stretched and exhausted, still retaining considerable tone, that there was some trouble in expressing the placenta from the vagina.

Such being the case, after several attempts by other means above stated, two fingers may be introduced into the vagina, palms downward, and by firm, steady pressure backward and downward, assisted by pressure from above, overcome the obstruction and cause the placenta to follow closely on to the dorsal surface of the fingers and be delivered with the greatest ease.

Much tension on the cord should not

be attempted, for fear of tearing it off or causing inversion of the uterus.

As soon as it is expressed, give the uterus a brisk massage to expel all the clots and give the patient one drachm of Ergot Fl. Ext.

Although it is not always necessary to give Ergot, yet it can do no harm and makes one feel more at ease after leaving the patient; and I can say that I have never had a postpartum hemorrhage follow in cases where it was used, but did a few times before I began using it routinely, which was about seven years ago.

We should make a thorough examination of the placenta as it should never be omitted or delegated to another.

It has been my practice, unless I knew the perineum was lacerated, to wait until the placenta was expressed, before inspecting the parts, but knowing there was, to repair it at once, while the patient was still more or less unconscious to pain from the anaesthetic.

I believe it an advantage and a duty to repair all lacerations, and in placing sutures to reach both deep and wide, so as to gather plenty of tissue, thus securing a muscular, instead of a skin perineum, as is so frequently found.

After the placenta has been disposed of, the woman should have a bichloride sponging of the genitals and a dry sterile napkin applied and placed comfortably in bed.

It has been my recent practice to have the child rubbed up good with olive oil to loosen the vernix caseosa, wiping off the mixture without washing the surface, except the face for at least three or four days, believing we get less skin irritation than when for-

merly, when soap and water followed.

The cord should be securely tied and sponged with sterile cotton or gauze with boric acid.

Before leaving the house, the physician should instil one or two drops of Argenti-Nitras Sol., 1 or 2 per cent into each eye of the child, being sure to get it into the conjunctival sack.

Before departing, he should personally inspect the dressings of the cord for fear of hemorrhage and having to return for that purpose; also, take note of the condition of the mother's pulse and uterine contraction.

#### CONCLUDING REMARKS.

There are three things that contribute to the safety of chloroform in obstetrics, or during labor. One is the stimulating effect of the labor pains upon the cardiac nerve force, and the other, the physiological anaesthesia produced by the cerebral congestion, induced by the bearing-down efforts. The first factor helps to prevent chloroform syncope, and the second, to lessen the amount required; but the greatest factor of them all is the properly prepared acceptability of the mind, which diminishes the danger and reduces the amount of chloroform needed to one or two drachms for the entire delivery.

My convictions are that is justifiable in any stage of labor, on the grounds of humanity, for it certainly diminishes the shock from severe and prolonged suffering.

I am sure that since I began its use, my mothers have made better and quicker recoveries from labor, because they got through quicker, easier and with much less muscular exhaustion than before.



It very materially facilitates labor by relaxing the tissues and hastening the dilatation of the cervix; as almost invariably the cervical dilatation is completed within an hour from the beginning of it; and with my last 100 deliveries, I have not had to exceed 12 cases that had to labor over two hours, from the time I made my first examination, no matter at what degree of dilatation of the cervix was found, until the babe was born, and only one, out of the 12, exceeded three hours of labor from that time.

My perineal lacerations are cut to a minimum, to what they were before I began its use.

In regard to forceps deliveries, I will say that during my first three years of practice I delivered six women with forceps out of 60 deliveries, or 10 per cent, the next two years I delivered 60 women with the use of forceps but twice; the last ten years, over 450 cases without the use of forceps

## Abstracts

### THE PROTEIN POISONS.

V. C. Vaughn Ann Arbor, Mich. (Journal A. M. A., November 15) relates the discovery in 1903 of the highly active poison obtained from various pathogenic and non-pathogenic bacteria and from vegetable and animal proteins, now known as "the protein poison" and believed to be a constituent of every true protein, whatever its source. It is not found in certain albuminoid substances such as gelatine. The symptoms produced by it are characteristic and can be divided into three well defined stages. The first is that of peripheral irritation shown by the scratching of guinea-pigs and urticarial rash in man.

The second stage is one of partial paralysis with rapid and shallow breathing. The third stage is the convulsive one, beginning as isolated clonic movements, later becoming general and ending as a rule in death. Small doses subcutaneously cause fever and by changing the size one can induce any and every known type of fever in experimental animals. Proteins taken into the alimentary canal become poisonous at about the peptone stage, but the digestive process proceeds and the peptone is broken up into harmless amino-acids which are absorbed and synthesized into the proteins of our bodies. When the proteins find their way into the blood without being acted on by the digestive juices they produce the deleterious symptoms. Many diseases are due to the parenteral digestion of proteins. If the body becomes sensitized by proteins in the blood, disease may occur without any bacterial factor. It has been shown that hay fever and kindred disorders are due to such sensitization and it is a question of whether the vitality of the infant being lowered by excessive heat may not cause the absorption of undigested proteins and thus bring on the summer diseases of infants. Recent studies in protein sensitization have materially modified our views as to the nature and progress of infectious diseases. Bacteria are not unicellular plant organisms. Those which have been most thoroughly studied consist largely, if not wholly, of nucleoproteins or glyconucleoproteins and are therefore more closely related to animal than to vegetable life. Their chemical structure is also not simple. The newer theory of how bacteria cause disease is stated by Vaughn as follows: "The cell is the morphologic unit of life, though not the physiologic unit. The latter is the protein molecule which lies in the cell and of which the cell

is essentially composed. Bacteria are particulate proteins, and viruses capable of causing disease may be without form recognizable by us. The only essential and constant distinction between living and dead matter is that the former is never in a state of equilibrium; it is constantly absorbing and excreting; it feeds and eliminates; it is constantly trading in energy; it is labile, not stable. Every living cell must form ferments by which it splits up the pabulum on which it feeds. Whether a given bacterium is pathogenic to a given animal or not depends on two things. First, in order to be pathogenic it must be able to split up and feed on the proteins of the animal body; otherwise it cannot grow and multiply in that animal's body and consequently cannot harm it. Secondly, the ferments of the cells of the animal's body must not be immediately, at least, destructive to the invading bacterium. When the ferments of the body-cells have this destructive action on the bacterium, the latter cannot be harmful to the former. These two things determine the pathogenicity or non-pathogenicity of a bacterium, and one or the other or both lie at the base of all bacterial susceptibility and immunity. The pathogenicity of a bacterium is not determined by its capability of forming a poison, because there is no protein without poisonous content. The ferments with which cells, be they bacterial or body cells, split up their pabulum or prepare their food are known as extracellular ferments. They diffuse from the cell into the surrounding medium, and exert a cleavage action on those food substances which they are capable of thus altering. Some are highly diffusible and may pass through a relatively large amount of pabulum, while others apparently act only on those substances that come into contact with the cell." Of all

the bacteria Vaughan has worked with, the *B. prodigiosa* yields the largest amount of protein poison, but it is not pathogenic because it cannot grow and multiply in the animal body. The anthrax bacillus on the other hand yields a relatively small amount of protein poison, but it is one of the most infectious known because of its growth and multiplication in the body. The most important lesson learned from protein sensitization is how to control the action of cell ferments, as shown by vaccination. Vaccines are used not only as preventive but as curative agents. While their indiscriminate and ignorant employment is harmful their proper use is rational and scientific.

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#### INFANTILE PARALYSIS.

E. P. Magruder, Washington, D. C. (Journal A. M. A., November 8), reports a case of infantile paralysis affecting the lower extremities, surgically treated by transplantation of the biceps tendon into the patella and a double fixation at the ankle-joint by means of three screws, one through the external malleolus, astragalus and calcaneus, another through the internal malleolus almost at right angles to the first, while a third was passed through scaphoid and cuboid, fixing the key of the arch of the foot. The head of the femur, which was loose from its socket, was returned to the acetabulum and a plaster-of-Paris cast snugly applied from the foot to the costal margins and kept on for six weeks. Passive motion and massage were later applied and the patient is learning to walk and can stand on his affected leg alone. Magruder believes that the double fixation method with tendon transplantation is a valuable surgical asset in paralysis of the lower extremity. He says: "A double fixation is a double

strengthening. It makes assurance doubly sure. The foot-bridge with handle-bars and strings on the ground running parallel is, I am persuaded, an effective device, the simplicity of which is its recommendation. The value of the open air and sunshine, in connection with the exercises as carried out with this device, is patent. The little patient early learns to become independent of another's assistance, which stimulates and encourages self-confidence. Properly directed, nothing else is quite comparable to exercising the muscles by the patient himself. Self-reliance has no substitute."

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#### THE MEDICINE OF OUR FOREFATHERS.

What our forefathers accomplished in medicine was chosen as the subject of a paper by Dr. J. J. Walsh, of New York (Journal A. M. A., November 15). He finds in the history of medicine of the earlier days that some form of anaesthetic was used as early as the seventeenth century, that the healing of wounds by first intention was aimed at, and operations were done on the skull for tumor and abscess, and in fact that practically all our surgical discoveries of recent times have been anticipated in the distant past. Even one of our latest triumphs, the suppression of yellow fever, seems to have been anticipated in many of its ideas in an old pamphlet by a Dr. Potter published in the beginning of the last century. As regards medical education the requirements of the first medical schools in this country largely anticipated modern demands. Modern views as regards consumption, the use of cold water in fever, and other matters could likewise be quoted from older writings in like manner. He says our philosophy, our literature, our

poetry, our art are nearly all old, and what is best is of the olden time, and asks why should not this be true with regard to medicine, at least enough to make us realize its glorious past history.

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#### THE FAMILY DOCTOR.

G. W. Guthrie, Wilkes-Barre, Pa., says that it is self-evident that the work of the medical profession must necessarily be specialized, as the field has become so vast that one mind can only cover it in a general way, but granting that it may require thirteen or twice thirteen specialists to treat everything that is possible, it will be an unfortunate day for society when the office of family physician has become obsolete. The people are not able to decide wisely for themselves even in the choice of a corn doctor and the intelligent advice of a family physician should always be available. The poor are well provided for by the hospitals, the rich can pay for what they need, but those of moderate means are betwixt the two, unprovided for to too great an extent. In view of this fact Dr. Cabot, of Boston, has advocated the grouping of specialists to furnish what he calls "group diagnosis" at a figure within their ability to pay. He referred to clinics supplying such aid, the most notable of which is the Mayo clinic at Rochester, where every necessary examination is made and charges are according to the ability to pay. This furnished the only way in which the middle class can obtain the best services without becoming paupers and being treated as such in charity hospitals. Such clinics and groupings would by no means do away with the necessity of the family doctor. In such a system he must be an up-to-date man, but appreciating, however, his own limitations. Much has been said of



lodge practice and medical insurance and the question has been taken up by the American Medical Association, and he quotes from Dr. Lambert's address at Minneapolis as to the necessity of seeing justice done both to the profession and the poor and moderately well-to-do.

Dr. Randolph Lyons (New Orleans Medical and Surgical Journal) gives a report of seven cases of amebic dysentery treated with emetin hydrochloride. Six of these cases were previously reported in the Journal of the American Medical Association, April 19, 1913.

The total number of cases on record, including the authors' seven cases, is only forty. Though the number of the cases treated is small, yet the results are most encouraging. It has been shown that emetin will destroy ameba in vitro in very high dilutions (1 to 100,000).

There is yet much to be learned in regard to the manner of action of emetin in dysentery.

The total amount of emetin used in the first case was 1.8 grains, given in three injections. The stay in the hospital eight days. The patient was well after four months.

The sixth case in the series was given 2.7 grains. Patient in hospital nine days. Last injection of  $\frac{5}{8}$  grain was deemed unnecessary. Well after four and half months.

The amount of emetin administered ranged from 1.1 grains to 5.2 grains, and the stay in the hospital from eight to thirty-nine days.

All of the seven cases were cured save the second case in the series. This case had peritonitis on admission, and the necropsy showed gangrene of big gut with three perforations.

No bad symptoms of any kind were observed from the injection.

No doubt this treatment will be thoroughly tried out during the coming year.

## Book Reviews

### THE SURGICAL CLINICS OF JOHN B. MURPHY.

October, 1913. W. B. Saunders Company, Philadelphia.

The success of Murphy's clinics is now more than assured and the profession eagerly waits for the "next number." The October issue is fully up to the excellent standard of this work and contains many features of interest. In addition to the usual interesting surgical program there is a most instructive talk on Cancer, by Dr. W. L. Rodman of Philadelphia. As we have had occasion to say before, we repeat now, that no physician nor surgeon can afford to be without these volumes, for the many practical points on diagnosis which they contain is a post graduate study in itself.

### THE ELEMENTS OF BACTERIOLOGICAL TECHNIQUE.

By J. W. H. Eyre, M. D., director of the Bacteriological department of Guy's Hospital, London. Second edition, re-written and enlarged. Octavo of 518 pages, with 219 illustrations. Philadelphia and London: W. B. Saunders Company. 1913. Cloth, \$3 net.

Eyre's Bacteriological Technique is a short work of excellence. It is specially adapted to the practitioner who wishes to do work of this nature in tabular form, and classified so that he can readily find what he wishes without the necessity of

reading page after page in a larger book. It begins with a chart giving the position of bacteria in the vegetable kingdom. The regulations governing the bacteriological department of Guy's hospital are copied, and give valuable ideas relative to handling material of infective nature when working with the same, safeguarding self as well as those who might perchance be thrown in contact with the work in whatever capacity. A chapter is set aside for describing the glassware commonly used in laboratory work. It is well and amply illustrated, and a very descriptive text, which explains the uses and the technique of handling, concluding with the methods of cleaning the glass apparatus, both new, and that which has been used with infective materials. Another treats of sterilization, and the varied methods utilized for the purpose. Still another on the microscope; its construction and accessories, clearly illustrating all details with thoroughness and comprehensiveness. One describing the apparatus and the reagents used in bacteriological examination; methods employed in examinations, with tabulated details and technique. A chapter is devoted to staining methods, embracing formulae for preparing stains, special and stock. This is a valuable chapter and one not usually given in the works of this scope. Another is devoted to methods of demonstrating bacteria in tissues, embracing mounting, sectioning, and staining. Fungi are classified in a separate chapter, and the schizomycetes are treated of in still another. The formulae, methods of preparation, and standardization of nutrient media are given in a separate one, followed by a very valuable and instructive chapter upon culture media, with formulae for preparation and the varieties and uses of the special media. There are others dealing with incubators; methods of culti-

vation; methods of isolation. Identification and study is rather extensive, well illustrated, and explicit. Experimental inoculation of animals with a description of apparatus and methods appertaining thereto. Study of experimental infections during life; and postmortem examination of these experimental animals receive ample attention.

The last two chapters deal with pathogenic bacteria, and bacteriological analyses, which, though they might be dilated into an extensive treatise, receive such handling as to reduce them to valuable information in few pages. As a whole it is a work one cannot well afford to be without if he is doing any laboratory work whatever, since it contains material and information not found in works of this scope.

T. C. S.

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#### THE PHYSICIAN'S VISITING LIST FOR 1914.

(Lindsay & Blakiston's.) P. Blakiston's Son & Co., Philadelphia.

Sixty-three years of publication of this visiting list is sufficient recommendation and its use has become a necessity on the part of many members of the profession.

The list is published in the regular, perpetual and monthly editions at prices ranging from one dollar and twenty-five cents to two dollars and a half and is arranged for from twenty-five to one hundred patients weekly.

Many useful tables and much valuable information, as well as specially ruled pages for memoranda and addresses of nurses and such like, add value to an already valuable and useful list.

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The American Journal of Surgery will present in January an issue of their jour-

nal devoted exclusively to Fractures and their treatment.

The following subjects will be presented by acknowledged authorities in this special branch of surgical work:

"Astragalus Injuries" by F. J. Cotton, M. D., Boston, Mass.

"Diagnosis of Fracture" by Lewis A. Stimson, M. D., New York.

"Position in the Treatment of Juxta Epiphyseal Fractures at the Hip and Shoulder" by Fred. Albee, M. D., New York.

"A Splint for Maintaining Nail Extension During Transport" by John C. A. Gerster, M. D., New York.

"Fracture of the Skull: Roentgen Ray as an Aid in Its Diagnosis" by W. H. Luckett, M. D., New York.

"Vicious Union" by James K. Young, M. D., Philadelphia, Pa.

"The Immediate and Remote Results of Fractures of the Skull and Spine" by Chas. Elsberg, M. D., New York.

"Conservation in the Treatment of Fractures" by Wm. L. Estes, M. D., So. Bethlehem, Pa.

"Some Phases of Fracture Treatment as Based on Hospital Experience" by E. S. Van Duyn, M. D., Syracuse, N. Y.

"The Treatment of Fractures" by E. P. Magruder, M. D., Washington, D. C.

#### NEW AND NONOFFICIAL REMEDIES.

Since publication of New and Nonofficial Remedies, 1913, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies."

Gluten Food A, Barker's — A wheat-gluten flour, containing not more than 4

per cent. of carbohydrates and 87 per cent. protein.

Gluten Food B, Barker's — A wheat-gluten flour, containing not more than 7 per cent. carbohydrates and 85 per cent. protein.

Gluten Food C, Barker's — A wheat-gluten flour, containing not more than 12 per cent. of carbohydrates and 83 per cent protein.

Barker's gluten foods are indicated when a practically starch-free diet is desired, particularly in most forms of diabetes. It can be taken uncooked or made into muffins. Herman Barker, Somerville, Mass. (Jour. A. M. A., Sept. 27, 1913, p. 1042).

Acne Bacterin Polyvalent.—For description of Acne Vaccine see N. N. R., 1913, p. 221. Abbott Alkaloidal Co., Chicago.

Coli-Bacterin Polyvalent.—For description of Bacillus Coli Vaccine see N. N. R., 1913, p. 221. Abbott Alkaloidal Co., Chicago.

Friedlander-Bacterin Polyvalent.—For description of Friedlander Vaccine see N. N. R., 1913, p. 223. Abbott Alkaloidal Co., Chicago.

Gonococcus-Bacterin Polyvalent.—For description of Gonococcus Vaccine see N. N. R., 1913, p. 223. Abbott Alkaloidal Co., Chicago.

Pneumo-Bacterin Polyvalent. — For description of Pneumococcus Vaccine see N. N. R., 1913, p. 224. Abbott Alkaloidal Co., Chicago.

Staphylo-Acne-Bacterin Polyvalent. — For description of mixed vaccines see N. N. R., 1913, p. 224. Abbott Alkaloidal Co., Chicago.

Staphylo-Albus-Bacterin Polyvalent. — Abbott Alkaloidal Co., Chicago.

Staphylo-Aureus-Bacterin Polyvalent.—  
Staphylo-Bacterin (Human) Albus-Au-



reus-Citrus.—For descriptions of *Staphylococcus Vaccines* see N. N. R., 1913, p. 225. Abbott Alkaloidal Co., Chicago.

Strepto-Bacterins (Human).—For description of *Streptococcus Vaccines* see N. N. R., 1913, p. 226. Abbott Alkaloidal Co., Chicago.

TyphoBacterin Polyvalent.—Abbott Alkaloidal Co., Chicago.

Typhoid Prophylactic.—For description of Typhoid Vaccine see N. N. R., 1913, p. 227. Abbott Alkaloidal Co., Chicago

(Jour. A. M. A., Oct. 4, 1913, p. 1297).

Ninhydrin.—Ninhydrin is triketohydrindenhydrate a derivative of inden. Colorless crystals, readily soluble in water. The aqueous solution gives a blue color on boiling with protein bodies or amino acids derived from them, which have the amino group in the alpha position. Ninhydrin is used in the diagnosis of pregnancy according to the method of Abderhalden. Farbwerke-Hoechst Co., New York (Jour. A. M. A., Oct. 11, 1913, p. 1377).

Placentapeptone.—A peptone derived from the placenta. It is used in applying the optical test for pregnancy according to Abderhalden. Farbwerke-Hoechst Co., New York (Jour. A. M. A., Oct. 11, 1913, p. 1377).

Antirabid Vaccine.—It is prepared according to the method of Pasteur and is doses, to be administered during 21 days. Schieffelin and Co., New York (Jour. A. M. A., Oct. 11, 1913, p. 1377).

Copper Citrate, Merck.—This salt complies with the standards for copper citrate.

N. N. R., Merck and Co., New York. (Jour. A. M. A., Oct. 11, 1913, p. 1377).

Transfer of Agency.—The biologic products of the Sophian-Hall-Alexander Laboratories which were accepted for inclusion with N. N. R., are now sold by E. R. Squibb and Sons (Jour. A. M. A., Oct. 11, 1913, p. 1377).

Since October 1 the following articles have been accepted for inclusion with New and Nonofficial Remedies:

Abbott Alkaloidal Co.:

StreptoBacterin (Scarletina Baeterin).

Antistreptococcic Vaccine (Scarletina Prophylactic).

The Bayer Company, Inc.:

Tannigen Tablets, 8 grs.

Farbwerke-Hoechst Co.:

Silk Peptone "Hoechst."

At the request of the manufacturer the Council has voted to reconsider the acceptance of and omit the following from New and Nonofficial Remedies:

The Bayer Co., Inc.:

Alypin Tablets, 3 1-3 grs.

Alypin Tablets, 1 1-8 grs.

Alypin Tablets, 3-4 gr.

Citarin Tablets, 15 grs.

In view of reports of untoward effects from Hormonal and the claim of the manufacturer that the product now on the market differs from that described in New and Nonofficial Remedies the Council has rescinded the acceptance of:

Schering & Glatz:

Hormonal (Hormonal Intramuscular and Hormonal Intravenous).

# The New Mexico Medical Journal

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E · D · I · T · O · R · I · A · L

*The New Mexico Medical Journal is not responsible for the opinions expressed by any of its contributors.*

**You want a larger and better journal  
YOU CAN HAVE IT BY WRIT-  
ING OUR ADVERTISERS: "I  
SAW YOUR AD. IN OUR STATE  
JOURNAL."  
FAVOR THOSE WHO FAVOR US**

The Railway Surgical Association of the Southwest held its third annual meeting in El Paso, Texas, on December 12th and 13th, 1913. While the attendance was not as large as had been hoped for, the meeting made up in enthusiasm and excellence of papers for the small attendance.

Officers elected for the ensuing year are as follows:

President—Doctor R. L. Ramey, El Paso, Texas.

Vice Presidents—Doctors W. L. Brown, El Paso, Texas, and J. R. Gilbert, Alamogordo, New Mexico.

Secretary and Treasurer—Doctor C. P. Brown, El Paso, Texas.

Executive Committee—Doctors F. E. Shine, Bisbee, Arizona; J. G. Holmes, Alamogordo, New Mexico, and M. G. Paden, Carrizozo, New Mexico.

This organization had its start in the New Mexico Railway Surgeons' Association some three years ago, when it was thought advisable to enlarge its field of membership. Now after three years, a still larger organization is to be attempted and to this end a commit-

tee has been appointed to carry a new plan into effect. By this new plan membership will be open to all ethical practitioners of New Mexico, Arizona, West Texas and Northern Mexico. It is proposed to change the name of the organization to meet the new conditions and to enroll as members every practitioner in the territory mentioned.

The time has come when the medical profession of this part of the country should put themselves forward to the end that the world in general and the United States in particular shall know that in this frontier region, in this country which some one has been pleased to term "the country God forgot," there is a medical profession as able and as up to date as exists in any part of our common country and that the standard of practice is as high as that anywhere else in the country.

We commend this new organization to our readers and pledge it our loyal support and our best efforts.

Those who motor should wear goggles, especially if they drive. The glass in cheap goggles is of the poorest quality, and is injurious to the eyes. Various scientific tests have been made by competent experts, showing that almost all cheap, colored spectacles contain waves, bubbles, refractive power and other imperfections that render them

unfit for use. If plain glass goggles are desired, they should be perfect in their plainness. Amber goggles are better than smoke or blue, as they protect the eyes from the sun's most irritating qualities; besides this, objects can be more clearly seen through amber glasses than through glasses of any other color. If goggles are worn, they should be large and convexed outward, and should fit as closely to the face as possible. The use of colored goggles while automobiling protects the eyes from the sun and also from the irritating effects of the wind, and, furthermore, lessens the liability of foreign bodies, such as sand and dirt, being driven into the eyes. All that has been said of automobilists applies equally well to motorcyclists. If you drive a car or a motorcycle wear amber goggles (made to suit your vision if necessary), but do not purchase cheap ones. You cannot afford to injure your eyes, and, besides this, cheap goggles will probably cost you an oculist's bill in the end.

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### STAND UP STRAIGHT AND GET THE FULL HORSEPOWER OUT OF YOUR HUMAN MACHINE

The way the human body is used is of the utmost importance if the person is to have the best of health of which the person is capable. With a person it is much the same as with the automobile. One represents a 50-horsepower engine, another a 40, another a 30, still another 20, and if the body is used rightly this full amount of energy can be developed without harm. If the body is used wrongly, as is true with the machine, it may be

ruined in developing half the amount of the designed horsepower. When rightly used, the parts are all in balance; there is no undue strain to any part, the chest is carried high, so that the breathing is easy, and there is the full amount of "wind power." The abdominal organs are properly supported and work with the least difficulty, the digestion and nutrition are good. If the body is drooped or buckles in the middle, the whole body suffers, and many times disease conditions start in this way. In such drooped position the chest is flattened, so that the lungs cannot work rightly and become weak, the abdomen is telescoped and the stomach, bowels and other organs are crowded together and work badly, so that indigestion and constipation result. Health, or the best possible efficiency, the full horsepower of the person, cannot result under such conditions any more than an engine can develop its rated horsepower if the cylinders are full of carbon, or that the fuel in the furnace can be consumed properly if the drafts are not properly open or the ashes are not removed. The position most favorable for health and in which the load or burden of life can be carried most easily is with the body, both when sitting and when standing, as it would be if a person were trying to sit or stand as tall as possible. This gives the high chest, the flat abdomen, the erect head, square shoulders, straight knees, and the springs of the whole body are set in the best way. This is the position recognized by the athletic trainers, by the singing teachers and by all those who are expected to train individuals for great effort. The same position



is best for everyone, whether the effort be great or small, or whether the work be with the head or muscle.

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#### A FEW SUGGESTIONS.

The busy physician, who sees many patients daily, does not always have, or take, the time to carefully record his cases. He should, at least, make records of his most interesting and important ones. After the clinical examination is completed, make the diagnosis and write it down. If the case comes to operation or autopsy, compare the findings with your previous conclusions and, if they do not agree, determine the source of error and avoid it in future work. Herein lies one of the great advantages of post-graduate study. Not only does one hear excellent clinical lectures with demonstrations of examination methods, differential diagnosis and the latest points in treatment, but cases are followed from beginning to end. The pathological findings are correlated with the symptoms, and their piecing together is extremely instructive. If more attention were given to textbooks, journals, careful work, reasonably detailed records and profiting by personal experience, there would be less need of post-graduate courses.

Most families in this country have a decided objection to permitting a post-mortem to be made on the remains of deceased relatives, and this has, without doubt, impeded the acquiring of pathological knowledge by our average physician, as compared with our European confrere. The laity looks only at the particular case in hand, and thinks of it more or less in the light of showing a lack of respect

for the dead, which IT CERTAINLY IS NOT, and forgets entirely, or does not know, that pathological knowledge is a necessity for the physician, and that what he learns from each autopsy increases his future usefulness to the community. If physicians more frequently saw the pathological condition present, they would be more apt to diagnose the lesion and not the clinical syndrome, and direct their treatment to the cause rather than to the effect. Of course, the symptoms should be relieved, as far as possible, but we should look deeper. Public opinion can be slowly altered on this question, and it is in our power to do it.

We all see cases that are of unusual interest on account of rarity or some peculiar feature. Why not write down notes on them and send them to us to publish in our columns? It is always of interest to know what is going on, medically, in different parts of our state.

E. C. P.

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#### PAY YOUR ANNUAL DUES.

The 1914 dues are now due, and members should be prompt in settling up and getting a receipt for them.

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Through an oversight on the part of the managing editor, the name of Doctor G. E. Bushnell of Fort Bayard was omitted from the published list of appointments by President H. B. Kauffmann. Dr. Bushnell is the Grant County member of the Legislative Committee.

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"A sixty days' tour of the well known European surgical clinics is being arranged under the auspices of the Georgia Surgeons' Club, to close

with the meeting of the Congress of Surgeons of North America in London the latter part of July, 1914. Representative surgeons are invited and may secure details of the trip from the secretary, Dr. R. M. Harbin, Rome, Georgia."

Recently one of the leading manufacturing pharmaceutical houses received a letter upon the letterhead of a retail druggist, but signed by another name followed by the word "druggist." The person signing the letter may have been a clerk or successor of the druggist. The letter was as follows:

"There is practically no sale for your Emmenagogue Improved Pills, as few ladies know anything about them, and we can give no advice, as we know nothing about them ourselves as to dose, etc. Please let us know by return mail and tell us how to use, dose, etc."

Reply was made to the pharmacist whose name was on the letterhead, and was as follows:

"We have our doubts about Mr. — being a druggist, for we cannot image any druggist not knowing that it is not only immoral, but criminal, to sell an emmenagogue except upon a physician's prescription. We believe that every druggist who sells an emmenagogue direct to the consumer is put upon his notice that it will be used for an immoral and criminal purpose. Emmenagogues on our list are intended exclusively for the prescription trade and we never knowingly sell them for popular use or to be recommended and resold as remedies for female complaints, etc."

## County Society Notes

The Bernalillo County Medical Society met in regular session at the Commercial Club on December 3rd, 1913. In the absence of the president, Doctor G. S. McLandress, the meeting was called to order by Vice President Doctor E. F. Frisbie.

Reports were read and approved. The essayist of the evening, Doctor M. K. Wylder, being unavoidably absent, his paper on Tuberculosis of the Knee was passed.

The following officers were elected for the ensuing year:

President—Doctor J. A. Reidy.

First Vice President—Doctor J. W. Colbert.

Secretary—Doctor F. E. Tull.

Treasurer—Doctor A. G. Shortle.

Censor—Doctor J. H. Wroth.

(Doctors Hope and Spargo holding over).

Delegates to the New Mexico Medical Association—Doctors J. F. Lilly and W. T. Salmon (Doctors C. A. Frank, J. H. Wroth and E. Osuna holding over).

The following members were present: Doctors Cipes, Rice, Wroth, Frank, Cartwright, Burton, Espinosa, Lilly, Colbert, Shortle, Frisbee, Kauffmann, Salmon and Tull.

F. E. TULL, Secretary.

The Dona Ana County Medical Society met in regular December session and elected Doctor J. H. Blair of Rincon a member.

The following officers were elected for the ensuing year:

President—Doctor Charles Turner Sands, Las Cruces.

Vice President—Doctor A. E. Lauson, Anthony.

Secretary-Treasurer—Doctor T. C. Sexton, Las Cruces.

Censor—Doctor H. M. Cornell, Las Cruces.

Delegate to the New Mexico Medical Society—Doctor T. C. Sexton, Las Cruces.

T. C. SEXTON,  
Secretary.

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## Original Articles

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### THE TREATMENT OF GALL-BLADDER DISEASE

By J. F. Lilly, M. D.,  
Albuquerque, N. M.

Read before Bernalillo County Medical Society, September 17, 1913.

The first thing to consider in discussing the treatment of gall-bladder disease is what conditions are medical and in what sort of cases surgery is indicated. While opinions still vary on some points as to the indications for medical or for surgical treatment, it is rather unusual, I believe, for the internist and the surgeon to disagree when considering any given case. It is conceded that certain phases of gall-bladder disease are distinctly surgical, such as acute suppurative cholecystitis, frequently recurring gall stone colic, empyema of the gall bladder, common duct obstruction, carcinoma, and the pancreatic lesions that are secondary to bilious infections. In certain mild cases, and these are the most frequent clinical types, chronic cholecystitis and gall stones that are pursuing a latent course, it is debatable if medical treatment does not offer as much to the patient as surgery. Nowhere do we find

wider dispute as to surgical indications than among surgeons, some advocating that there is no other treatment than operative; others consider eighty per cent of gall bladder diseases as medical.

Diseases of the biliary tract are peculiar in that the same lesion in one individual may be latent and harmless, and in another intensely active and full of danger. With such variegated clinical manifestations and prognostic possibilities, one is restrained from offering dogmatic rules of treatment. Individualization is necessary and therapeutic decision can be made only after careful consideration of all factors bearing upon each case.

We have all seen a goodly number of patients with mild chronic cholecystitis operated on by the surgeon with rather disappointing results, while in others, brilliant results were obtained, failures have been frequent enough to teach us increasing conservatism in the selection of surgical cases.

In diseases of the upper abdomen that have both a medical and surgical side, particularly chronic duodenal ulcer and chronic gall bladder disease, the surgeon is wont to attribute non-cures to the complication of delay. While this is unquestionably true, the same may be said with equal force by the internist. Were all such cases diagnosed early, it is probable that medical treatment of gall bladder disease would arrest the inflammation and prevent sequelæ.

The greatest deficiency that exists in clinical medicine and surgery today is in diagnosis. Because of this deficiency, many of the cases of gall-bladder disease which now come to us



present the end results of infection which began years ago when these conditions were not recognized as frequently as today.

There is always a tendency for end results of any treatment to be measured by percentage of mortality, rather than by percentage of cure. The removal of gall stones *does not* cure gall-bladder disease, unless conditons favoring stasis and infection, the factors that made gall stones possible, are at the same time overcome, other failures are due to neglect of post-operative medical treatment. It is ordinarily the custom after the surgical treatment of nephrolithiasis to institute treatment to correct those disturbances of metabolism that produce this condition by dietetic measures, free water drinking and controlling the reaction of the urine, to prevent its recurrence. It seems to me that frequently the same care is not given to the post-operative management of gall-bladder disease.

While diseases of the gall-bladder are of remarkable frequency probably only a small percentage of those affected ever have active symptoms. In the Mayo clinic eight per cent of women operated for other conditions had gall stones. Many patients after a period of activity subside into latency indefinitely. This would make it appear that latent gall-bladder disease is not a very serious affair, and that in such instances a legitimate choice may be offered between medical and surgical treatment. Notlmagle, evidently inclined to this view, once remarked that gall stones belong neither to the physician nor to the surgeon, but to the patient. But in admitting the fore-

going, no internist should forget the potential danger in gall bladder disease and that needless delay in advising surgery converts such treatment from safety and simplicity to one of complications and inexcusable mortality. There is no better rule to guide the physician than to refer to the surgeon all cases in which the symptoms are persistent or are frequently recurring in spite of medical treatment, for surgery is undoubtedly the most effective treatment of the end results of bile duct infections. Unfortunately many cases are not cured even by surgical treatment because of the impossibility of controlling adhesions and other gross pathological lesions. Like in chronic appendicitis, the damage is already done and can not be fully rectified.

It would therefore seem that there is a distinct medical side to the therapy of gall-bladder disease and that Kehr was probably not far from the truth when he stated that surgical treatment is indicated in only two types of cases. First those with "vital" indications, chronic obstruction of the common bile duct, acute and chronic empyema, perforation and carcinoma. Second, ?? with "relative" indications, all those cases in which long continued symptoms or frequent attacks of colic have robbed the patient of enjoyment of life, or have endangered his ability to earn a living.

In discussing medical treatment it should be made clear at the outset that the object should be, not the dissolution of stones or the removal of adhesions, or the expulsion of concretions from the bile passages, for such attempts are futile. Indications point

rather to the prevention and control of infection and stasis—the factors which make these lesions possible. These represent the end of gall-bladder disease and when once formed, all that can be expected of medical treatment is palliative. In the ability to reduce gall-bladder activity to latency, medical treatment accomplishes much, since this, as has already been pointed out, amounts practically to a cure in many cases.

Coming now to the prophylaxis and to the treatment of early gall-bladder disease, we find that these phases of the subject are purely medical. In the prevention of the involvement of the biliary tract in acute infections, no extended work from a bacteriological standpoint has so far been done. Some clinicians have directed attention to typhoid and colon bacillus infections of the gall bladder, hoping thereby to prevent or cure the incipient infection of the mucosa before this becomes extensive enough to obstruct the cystic duct, formation of calculi, or the involvement of tissues beyond the mucosa. Some writers in studying this phase of the question, emphasize the frequency of cholecystitis during the course of typhoid fever and believe that this local infection of the gall-bladder is probably the most frequent cause in prolonging the disease more than three weeks.

Crowe's studies determined that hexamethylenamin, when administered in sufficiently large doses (at least seventy-five grains a day) appeared in the gall-bladder in a concentration sufficient to render bile an unsuitable media for the growth of bacteria. In some of the cases in which the infecting or-

ganism was *B. typhosus*, it was impossible to render the interior of the gall-bladder sterile so long as active therapy was continued. Quite recently, Burnham has failed to corroborate Crowe's findings and doubts the value of the drug in biliary infections.

Of the numerous drugs employed as biliary antiseptics, there are none that can be given in sufficient dosage to reach the gall-bladder in sufficient concentration to be clinically effective. The medical treatment of infections of the biliary passages must be attempted by other measures, whether or not immunizing serum will prove competent in keeping the bile passages sterile in acute general infections remains for the future to determine.

The extended use of proprietary gall bladder remedies by the profession is a matter of regret and it is unfortunate that the medical treatment of gall bladder disease is so frequently limited to the use of such nostrums. Members of the profession who prescribe such, the composition and pharmaceutical action of which they know nothing, except the gilded promises of the manufacturer, exhibit quite the same gullibility as do those weak members of the laity who, with more faith than reason, become converts to various forms of charlatanism.

Chologen, a representative of this class of gall-stone "cures," consists of three kinds of tablets: No. 1, calomel and podophylin; No. 2, calomel and podophylin; No. 3, calomel, podophylin, camphor and menthol, none of which, so far as is known, have any specific action upon diseases of the biliary apparatus.

Naunyn, after a life-long study of bile stasis, has recently called attention

to the presence of micro-organisms, particularly the *Bacterium Coli*, in the duodenal portion of the common duct of healthy individuals. He calls this "normal bactericholis." So long as the stream of bile offers no obstruction to its passage this organism remains harmless, whenever stagnation occurs for a while, a dangerous accumulation of bacilli occurs, and this leads to bacterial infection of the bile. It is not necessary that the bile stream should be completely interrupted, any degree of stagnation may be sufficient. The importance of the prevention of bile stasis becomes therefore an indication of grave import and it would appear that medical treatment has one of its best weapons in the ability to favorably influence bile flow in gall-bladder diseases.

Of exceptional importance and influence upon the flow of bile is the action of the choledcho-duodenal sphincter, in the pars intestinalis of the ductus choledochus. Thanks chiefly to the work of Pawlow, this sphincter is known to open only at definite times, chiefly during digestion; when closed it offers a powerful obstruction to the bile so that the latter is forced to flow toward the place of less resistance, viz: through the cystic duct into the gall-bladder. At the beginning of digestion, as soon as the sphincter is opened, the thickened bile from the gall-bladder mixes with the bile secreted by the liver and reaches the duodenum. Since in gall-bladder disease, the bile stagnates in the gall-bladder more than under normal conditions, it becomes more viscid and thick and is, therefore, hindered in its outflow during the periodic opening of the sphincter. One

of the most important indications for medical treatment is, therefore, to promote its expulsion into the intestine.

Nothnagle, years ago, made the assertion, based upon wide experience, that a full meal is the best cholagogue. The explanation of the function of the choledcho-duodenal sphincter justifies Nothnagle's clinical observation. The periodic opening of this sphincter is essential to the entry of bile into the intestine. The more frequently the tone of this muscle relaxes, the more outflow of bile is rendered possible. When the stomach is empty or after it has discharged its contents completely, the outflow of bile into the intestines ceases. On this account in gall-bladder disease, it is advisable to allow as short pauses as possible in the passage of food into the duodenum. In other words, patients should be given food frequently. A heavy meal undoubtedly stimulates bile production more powerfully than smaller meals. Increased flow of bile, however, is the object of treatment more than increased production of bile, so that the ordering of frequent but small meals forms the first principle in the dietetic treatment of gall-bladder disease. The diet should be divided into at least five meals daily. All foods difficult of digestion and easily decomposed and that lead to fermentation should be forbidden and in all individual cases the diet must be adapted to the existing conditions of the stomach and intestines. This summarizes the whole question of the dietetic treatment. There is no special gall-bladder diet.

Other measures that promote the expulsion of bile from the gall-bladder



and thus lessen stasis are the maintenance of normal intestinal peristalsis, the action of the abdominal walls and the pressure of the diaphragm upon the liver during inspiration and exercise. The powerful influence of intestinal peristalsis which is communicated to the muscular apparatus of the biliary tract is suggested by the not infrequent occurrence of gall-stone colic, following excessive purgation. It is important, therefore, to insure regular and normal intestinal peristalsis by dietetic measures and mild laxatives. To its favorable influence upon intestinal peristalsis and to the removal of injurious products of digestion, combined with the dilution effect of free water drinking, is to be attributed the benefits obtained by the Carlsbad and similar treatments.

Those factors which exert an influence upon the respiratory action of the diaphragm and through it on the outflow of bile, such as deep breathing, physical exercise and the prohibition of badly fitting corsets are of the greatest importance.

The cholagogue principle of gall-bladder disease is one of the oldest efforts of treatment. Numerous agents have been used with the idea to increase the amount of bile. Were it possible by medical measures to increase the secretory functions of the liver, it is questionable if the resulting increase in the amount of bile would prove beneficial. In certain complications, such as chronic obstruction of the common duct, this would be positively dangerous. The point is usually overlooked that it is not that bile is formed in insufficient amount, but that the bile which is formed stagnates, and it is to

the latter that treatment should be directed. Furthermore, in view of the action of the common duct sphincter, it is doubtful whether cholagogue agents could by the formation of increased amount of bile, sufficiently raise the pressure in the bile passages to overcome the resistance of the sphincter. This normally opposes a resistance corresponding to a pressure of about 700 mm. of water, while the normal secretion pressure is equal only to about 200 mm. of water. It seems, therefore, that the use of cholagogue agents, even if effective, would be irrational. It is however possible to produce a more easy flow of bile into the intestine if we make the bile more fluid. The most effective way we have of accomplishing this is by drinking an abundance of water, especially upon an empty stomach. It should be taken as hot as possible, for cold liquids, especially in cholelithiasis, frequently induce attacks of colic, and because of the beneficial relaxing effect that heat exerts upon muscle spasm. Patients should drink one or two tumblers of hot water an hour before breakfast and a tumbler or two before retiring, and in small quantities frequently during the day.

While the control of stasis and infection are the logically defined indications in medical treatment according to the present limit of knowledge, it is probably far from the truth to conclude that they will ultimately be the only ones. Cholesterol metabolism, of which but little is definitely known; the influence of disturbances of the liver and of general metabolism upon fluctuations in the composition of bile; the various factors that control the ex-

cretion of bile, and the problems attending infections of the gall-bladder and immunity in acute infectious diseases are additional factors which, when worked out and put upon a clinical basis, may have a marked and perchance a revolutionary influence upon our conception of treatment.

Finally it should be said that perhaps in no other abdominal condition is complete rest more indicated than following acute manifestations of gall-bladder disease. Following acute cholecystitis and even after gall stone colic, it is well to keep the patient in bed several days after each attack, and after all inflammatory manifestations have passed off and until no tenderness on pressure over the gall-bladder remains, a period which may extend from days to weeks, according to the severity of the case. By the more careful insistence upon rest, chronicity of the disease may frequently be avoided.

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### THE PHYSICIAN'S DUTY TO HIMSELF

By J. H. Wroth, M. D.,  
Albuquerque, N. M.

Address of president Santa Fe Railway  
Surgeons' Association, annual meeting,  
Topeka, Kansas, October, 1913.

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The title of this paper may strike you as probably peculiar. We have heard a great deal in past addresses of the duty of the physician to the public, the state at large and all that, but behind everything and really having more influence on all is the duty that every physician owes to himself.

It is needless to say that I do not intend to touch upon the necessity of a scientific education nor upon the fact

that every physician should be posted and well equipped intellectually, because those things are his instruments to work with, nor on the business ability of the man. No man realizes the value of a scientific education more than I do and, having seen the science of medicine so materially change in the last thirty-five years, I fully realize not only the necessity of learning, but am regretfully reminded of my own imperfections. I, however, desire specially to call attention to two things, one inherent in the physician and the other the condition that is about to arise, and both of them have to be acted upon by the physician himself.

First—There is so much tendency in the present day to consider the patient as a case; to look at him scientifically, and after all our trials and tribulations and after making our scientific diagnosis, we are frequently disappointed in the fact that we do not attain results. We know that we have been accurate in our manipulations; we know that the blood pressure, temperature, etc., have been accurately taken; that we have examined all the secretions and obtained correct returns, and that we have performed an operation according to the latest rules of the art. In other words, that we have followed and had correct returns from the scientific side of our nature, and yet we have gotten no results. As a rule, we fall back upon the old stereotyped proposition, that it was the fault of the patient. In a great number of cases it is the fault of ourselves. We forget, and I use the pronoun we in an impersonal sense, that we are dealing not only with a physical body, but with a marvelous human mind, a trinity,

physical, moral and spiritual, and these three are so closely interwoven that whatever influences the one indirectly affects the other. It therefore becomes our duty, whether railroad surgeon or every-day practitioners, to educate ourselves to understand the tri-partite composition of every human being and act accordingly in the proper way with the certain knowledge that our science will be definite and achieve greater results than if we looked upon our patients simply as vivisection objects. The days of the old country practitioner have passed. Everybody desires or wants to be a specialist and just as soon as he comes out of college, and in this connection I desire to quote one or two things. Oliver Wendell Holmes makes the following statement:

Regarding experience in olden times, in a conversation with an old-fashioned country doctor, he, the doctor, says: "A man who has lived among sick folks, for 30 years, as I have done—if he has not 30 volumes bound up in his head at the end of that time he had better stop driving around. I know the families that have a way of living through everything and I know the other set that have a trick of dying without any reason for it. I know the folks who think they are dying as soon as they are sick, and the folks that never find out they're sick until they are dead. I do not want to under-value your science—these things came after my day—and I am glad to send my patients to those who know when I am at fault. But I know these people—fathers and mothers and children—in such a way as science can never know without it takes time

about it, and sees them grow up—and how the wear and tear of life comes to them—you can't tell a horse by driving him once nor a patient by talking fifteen minutes with him."

In 1876 I was employed by two or three leaders of the profession. Dr. Weir Mitchell said to me at that time, and he needs no introduction as being a nerve specialist, that the first thing in meeting a patient was to win his confidence; that two-thirds of the time in consultation, if you choose to call it wasted, is wasted in getting acquainted with the patient, in considering his mentality, in finding out his various faults and the other third in finding out what is the matter with him. Dr. D. Hayes Agnew stated that no man should enter upon a specialty until he had had at least ten years' practice in general work and that it would take (and he inculcated this upon his students) at least that length of time to understand the human nature. Another, a purely personal experience: I had been in practice some 12 years when a gentleman for whom I have always had more than a great respect, came into my office with me. I firmly believe that at that time my knowledge of medicine was equal to his, but his peculiar methods of handling human nature showed me at once that I had failed in the one great proposition and inside of a year he attained a practice perfectly legitimate, but one that astonished me and I made up my mind that I would study and did study his method. This man had the peculiar faculty of winning rich and poor, high and low, at once gaining their confidence, and I am frank to confess to you that I learned more of handling



human nature from him and his methods than I had ever known before.

Now, you may want to know the application of this. The application is simple. It can be done if you will simply try it. In the common language of the West, "get next" to your patient before you treat him. Don't quiz him as to his frailties or his symptoms, but learn in an indirect method his peculiarities. In other words begin, no matter what time it takes, to inspire him with confidence in you and in your views. Remember that the personal equation of a patient and his attitude towards yourself is at least one-third of the result. A new science or branch of medicine, known as Psycho-Therapeutics, has finally based itself upon a firm and secure foundation and should be applied. The mental attitude of a patient to you and of you to the patient means success or failure. This does not mean in any sense that you should eliminate your science or that you should go to Christian Science or any other science that comes along, but it does mean an intimate and closer study of the individuality of the patient and adapting yourself to his point of view and to get him or her "en rapport" with yourself with the result in a great majority of cases that even if you give nothing but bread pills you will succeed.

Another failure on the part of the physician is lack of confidence in himself. This should never be shown. It is better to make a mistake legitimately than to hesitate. There are sometimes when it is perfectly right and fair to say you don't know, but don't ever fluctuate, and it is a great deal better to come out frankly and state that you

cannot expressly state what is the matter than to say one thing today and another tomorrow. And the first duty, to my mind, that a physician owes himself is to inculcate in himself confidence—faith, if you choose to call it—and to so act and educate himself to the point where he can impress upon others faith in his views, faith in his methods, and there will be no doubt as to the result.

Second—I desire to call your attention, and this is another duty that the physician owes himself, and that is to the coming commercialization of the profession. Somewhere in the Scriptures, and there are many men in my hearing that can give me the exact page and verse, it states that one of the prophets went up and prayed for rain and that his servant came down and said that there was a cloud the size of a man's hand on the horizon, and the result was that in a short time the entire neighborhood was flooded. There is coming before the profession in America, a condition which is the size of a man's hand at present. I hardly know whether to call it the Governmental control of the physicians, for I hardly believe that that will result, but I do believe that it means ultimately the regulation of certain and few physicians in various communities. Germany, France, Denmark, Scandinavia have all adopted the principle of having a so-called Government physician in each little locality, regulating the fees thereof and holding him responsible to Governmental control. This has spread to Great Britain and the recent insurance law of England carries with it the appointment of a Government physician, regulating the

fees, and what is more, the statement that in consultations such appointed physicians shall consult with similar appointees at a stipulated sum. The use of these physicians is open to everybody, rich as well as poor. The British Medical Association made a vigorous protest against this proposition, but without avail and this is the law in the British Isles today. So far the microbe of Governmental control has not reached the United States, but if you will stop to consider the complaint, the howl and action of Medical Societies against the so-called contract service, and will also consider our peculiar national condition that the State rights argument is going out, it will be but a few years until this same condition of affairs appears in America. Our Medical Journals are full of dismays resulting from contract work. To my mind, they are scared at a bug-a-boo, because the matter is surely coming unless some decided action is taken. Fortunately, it is no longer considered either indiscreet nor unprofessional to accept a contract. This is as it should be. The fault is with ourselves. In all professions we might as well recognize, as we should recognize, the great law of political economics, supply and demand. Whenever the supply equals or is in excess of the demand, the price goes down, and vice versa. This applies to everything—commerce as well as brains. When we consider that 20 years ago, we had double the quantity of medical colleges in the United States that the entire world had, we can understand what the effect was on the supply; in other words, plainly speaking, and I am about to leave the stage of active life,

we have too many Doctors and whenever you have too many the price is reduced.

In a conversation with a prominent physician of Denver some four months ago, he states that there were men very well read and well learned, fully up to their profession, who were doing abdominal operations for \$50, and upon my asking him what the reason was, he simply replied, "Bread and butter." In other words, no man living will see his family starve. It isn't a question of money in that sense, but it is simply a question of necessity, and as I said a few minutes ago, it is purely and absolutely the old economic question that when you have too many the price goes down. I can refer in my own State to a town of 400 that has three physicians and not one of them makes a living—they simply exist. When we consider the time spent in study and the money expended in our profession the problem complicates. What is the remedy? Personally, I believe the remedy lies in an Eutopian idea, one that I never expect to live to realize. The crowding out of smaller institutions by increasing requirements and what I consider more important than any, the organization of a National Board of Health with a Cabinet officer at its head and a National Examination, held, if you please, in various parts of the country, and giving the man who passes that a license to practice wherever he goes within the country to which he belongs. A country of this size does not demand more than ten or twelve Medical Colleges. Our profession is getting on such a basis that people are demanding day by day more of the physicians,

more knowledge, more courtesy, if you choose to call it, than ever before. Medicine is becoming and has been for the last 15 years a more exact profession; the time has passed for everybody and anybody to take up the profession unless he has a sincere and devoted love for scientific work. It is not in any sense a profitable profession. Do not think that I am a pessimist on this proposition, but I will make the broad statement that any man, or woman either, for that matter, who expends money and time in learning and will expend patience and perseverance in practicing would have attained a better financial return with a similar amount of capital in some other line. Do not think, I beg of you, that I am belittling our profession; it is not my intention, but I do feel this and feel it keenly, that we will be sooner or later face to face with a problem and that is the external fight for self-preservation—by a sort of trades-union proposition, much as I decry it, that we can hold our profession where it is. There are men in our profession as well as in all others, who, by their inherent genius stand head and shoulders above the rest of us, but the great bulk of the profession are handicapped by competition with incompetency and semi-ignorance and a feeling that the medical profession is a business proposition.

It is up to us to solve this problem. Personally, it can only be solved by sober, unselfish thought and if we continue to do as in the past, "let things slide," the result will be disastrous to some of us.

## OTITIC ABSCESSES OF THE BRAIN.

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Read before the Thirty-second Annual Meeting of the New Mexico Medical Society, Albuquerque, N. M., Oct. 3, 1913.

When we review the history of brain abscesses, as well as other complications following otitis media purulenta, we are not only impressed with the magnitude of their importance, but we are confronted with a secondary condition that presents this question for consideration: Would there be many of these conditions if it were possible to make an early diagnosis and apply such treatment as is consistent to the pathological lesions found? Of course it would be necessary, to obtain this coveted standard, to have the public mind so tutored that it would recognise the importance of an immediate consultation when the surgeon so advised. It would also be necessary that the physician recognise the surgical importance of a suppurating ear, and adopt the same measures, to prevent further complications, with as much avidity as is pursued in appendicitis to prevent peritonitis. Both otorrhoea and appendicitis, alike, often end in death when the usual procrastination prevails. The appendix lies in a large cavity that is easy of access, while the focal point of brain abscess of otic origin is located in a comparatively inaccessible cavity hidden in the depth of the temporal bone, and is surrounded with delicate and vital structures. Many physicians have achieved renown by entering the abdominal cavity and found a stumbling block in



a suppurating ear. Considering the treatment that is usually pursued in purulent otitis and the close relation which the cavum tympanum has to the mastoid antrum, the lateral sinus, the labyrinth, the temporosphenoidal fossa and the carotid canal it is not surprising that so many complications arise. However, the frequency and severity of the intra-cranial complications depend very much upon the virulency of the micro-organism causing suppurative otitis. The cavity of the cavum tympanum is often taxed to hold more than ten drops of pus, and the serious exudate and pus accumulate here in greater quantities than can be retained. At the same time the inflammation has occluded the eustachian tube, which is the natural tunnel of drainage, and the pus has filled the mastoid cells, the only other normal connecting area, so it becomes necessary that another exit for the pus must be found. In the effort to relieve tension an avenue of infection is most generally considered to be through diseased bone or the lymph or the blood streams and occur as a result of necrosis. The point of election may be through the tegmen tympani, a thin partition between the cavum tympanum and the temporosphenoidal fossa, or a similar lamina of bone, the tegmen antri, between the mastoid antrum and the deep temporal fossa. It is difficult to realize the many avenues by which the cranial vault may become infected until we investigate the numerous imperfections in the development of the cranium. The sutures between the bones may remain unossified for an indefinite period; the floor of the middle ear cavity may be incomplete and in close rela-

tion with the jugular bulb; the facial canal and other bone perforations for the passage of nerves and the numerous emissary veins and lymphatic vessels tracing these areas; the knee of the lateral sinus may encroach upon the mastoid space; the labyrinth is another avenue by which the cerebral fossa may be involved but whose obscure pathology demands much investigation.

There are no classical symptoms of brain abscesses and the absence of certain definite symptoms led some authority to state that "all symptoms may be present and the abscess absent, and there might be no symptoms and the abscess there." The death of the patient is often due to waiting for certain definite symptoms to appear. It is a well known fact that brain abscess may remain latent for years and then suddenly become manifest as a result of an acute exacerbation of the otitis media or perhaps to an incident too small to be noted. Those cases seen after a mastoid operation are usually attended with a foul smelling pus or other symptoms to arouse our suspicions and are more easily diagnosed than those brought to us in a comatose or a semi-comatose condition, with a vague history of disease of the middle ear or some extra-cranial surgical condition. The original condition is forgotten and the only new symptoms upon which we have to establish our opinion is a history of headache, dizziness and perhaps vomiting. If we are able to arouse the patient to conversation we may be able to establish an hebétude from the dull apathetic condition. Headache, vomiting, and we may add fever, occur with so many

diseases that we would not feel justified in making so important a diagnosis upon so small assurance, so we must look for other symptoms to properly illuminate the obscure condition.

After malaria, pneumonia, nephritis and other diseases have been excluded we naturally attach some importance to each symptom and study it in detail. The pulse in brain tumor is often suggestive, tho unreliable, and may be as low as 48 or less in spite of an elevated temperature or it may at times be accelerated. Muscular paralysis does not occur as often in these cases as we should naturally expect. However, there might be found a paralytic disturbance in the extremities or a paralysis of the ocular muscles, inequality of the pupils, diplopia, and tosis. The fundus oculi may be normal or there may be an optic neuritis and choked disk but these conditions are found less frequent with abscess than with tumor of the brain. An optic neuritis is usually suggestive of an intracranial involvement, tho it has been known to clear away after an operation of the ear. The neuritis may be only on the side of the abscess and is dependent upon the toxic elements of the abscess instead of the increased pressure as is the case of brain tumor.

The headache is most constant of all symptoms, but may be absent at certain stages and will vary from a slight annoyance to one of great intensity. Its location is varied from frontal, occipital or may be confined to a spot corresponding to the location of the abscess, which may be intensified by percussion, or the pain may be referred to a different location or cover the entire head and ex-

tend down the neck. Vomiting is quite common, tho may not be a frequent symptom until the late stages and is most frequent in cerebellar abscesses.

Fever may be entirely wanting; in fact, the temperature may run from subnormal to as high as 105° F., which may be indicative of meningeal complication or that the abscess has opened into the ventricles, at which time rigors may be expected.

The mental condition varies from slight dullness to one of profound stupor. The person may express himself slowly and if the abscess is in the left temporosphenoidal fossa there may be aphasia and word blindness. It is worthy of notice that convulsive seizures are few, but from a rapid increase in the size of the abscess may occur local or general convulsions. Blood count has failed to furnish any valued information. The cerebro-spinal fluid may be sterile, or streptococcus may be found. If the abscess has attained a large size the lumbar-puncture will show an increased pressure. The presence of pathogenic organisms would indicate a rupture of the abscess into the ventricles or a diffusion of the infection into the arachnoid space from which a grave prognosis should be expected.

After it has been determined that there is an intracranial involvement it becomes necessary to say whether we are dealing with an extradural abscess, sinus thrombosis, meningitis or brain abscess. It would quite transcend the limits of this paper to present the many features that differentiate these diseases and I shall refer but briefly to each one. Pachymeningitis is by

far the most frequent intracranial complication of otitis media. While the symptoms are often obscure they do not present the focal condition frequently present in brain abscess, and there is a local swelling and pain on pressure which may lead to an exploratory incision revealing the true condition. When a sinus thrombosis is suspected the temperature should be taken every two hours as there is often a sudden rise to as high as 106° F., with as sudden fall and unless the temperature is taken often this valued information might be overlooked. There will be a marked constitutional effect attended by rigors and profuse perspiration from general sepsis. There is a venous fullness and edema with tenderness back of the ear. The external jugular vein on the affected side may be less full than its fellow, but if the thrombosis extend into the internal jugular vein it may be felt running like a whip cord, firm but tender to the touch. It is usually impossible to say whether a brain abscess is or is not complicated by a local meningitis, and it is only when the meningitis is circumscribed that the differentiation is difficult, if it is diffused the symptoms are so characteristic as to make the diagnosis easy.

After the diagnosis is satisfactorily established it is then just as difficult, unless the avenue of invasion has been followed, and just as important to determine if the abscess is located in the cerebrum or cerebellum. Statistics show that there is an average of about three abscesses in the cerebrum to one of the cerebellum, tho this information is not of great assistance in dealing with an individual case. Sym-

toms are present in the majority of cases, tho they may be slight, but it is well known that the brain may become so tolerant to an abscess, in the latent forms, that localized symptoms may not be established. The location of an abscess in the brain is a difficult task unless a circumscribed paralysis has been produced. If the abscess is situated in such a position that it either involves the cortex in some part which presides over a special function, or destroys the white matter in such a manner as to cut across the fibers leading to such portions of the cortex referred to, the corresponding symptoms will be produced. Thus, hemiopia, aphasia, word-deafness, paralysis of the individual nerves may be produced in this manner. Or if the abscess is situated in such a position in the cerebellum that the escape of fluid from the ventricles is interfered with, internal hydrocephalous may be the result, thus giving an idea of its location.

Much importance has been attached to the information to be derived from the symptoms as suggested by Babin-ski in diseases of the cerebellum and should be given due consideration in every case before an operation is begun.

The treatment of brain abscess is imperatively surgical and such operations that will produce the best drainage, with the least manipulation, should be done at once. If a path of infection, leading from the tympanic cavity or roof of the mastoid antrum should be found, it should be followed with such instruments as may suit your selection and the opening made larger until the pus cavity is located. The



pus should be gently wiped away and a cigarette drain should be introduced at the lowest point of the abscess cavity, and a soft gauze dressing applied. When there is a suspected abscess and the symptoms not urgent enough to call for an immediate operation the method advised by Ballance may be pursued to a great advantage. The dura should be exposed over a great area, either in the middle cranial or cerebellar fossa, and an incision made through it sufficient for exploratory purposes; a dressing should be applied for twenty-four to forty-eight hours. The brain substance can then be explored over the area of decompression and if the pus is found it is evacuated in the manner to be described. The main advantage to be derived from this procedure is that the urgent pressure is relieved, and if pus is present it seeks the line of least resistance and is seen upon the first inspection at the dural opening, and can be evacuated with less danger of meningeal infection.

When we suspect an abscess and there is no visible pathway of infection the exact manner in which it should be drained is a matter of importance. If we suspect the temporosphenoidal lobe as the location, a sufficiently large button of bone should be removed over the aditus, at a selected spot above the zygomatic process, to facilitate the exploration of the entire temporosphenoidal region with ease. A handicap of too small an opening should at all times be avoided. After the button has been removed the dura should be incised in a horizontal plane and fine silk sutures inserted through its edges. These sutures can be used during the operation as retractors, and should the

exploration prove negative they can be used to approximate the dural edges, thus preventing a hernia. The brain substance is explored over the suspected area by a slender bladed knife thrust into the brain substance in as many ways as is necessary to ferret the suspected field. Should the abscess be encountered by the knife there will be a flow of pus along the blade. A pair of dressing forceps is pressed along the blade to the pus cavity and gently separated. This allows the pus to escape. The forceps are removed and thin flat retractors are introduced to the depth of the cavity and intrusted to an assistant. It is important not to allow the pus to escape too suddenly as this may cause hemorrhage in the brain substance by sudden diminution of intracranial pressure. The cavity should be wiped out as gently as possible, avoiding unnecessary manipulation, remembering that it is quite easy to open new avenues of infection in this delicate structure. The success of the operation and the comfort of the patient is due in a great measure to the drainage of the abscess, which is most satisfactorily established by placing a cigarette drain, suited to the size of the abscess, to the bottom of the cavity. The drain should remain in position from two to three days, depending upon the condition of the patient. If the temperature is satisfactory and the patient's condition improved the dressing should be delayed until the end of the second or third day. At this time the drain should be removed and the wound gently opened by the retractors, and wiped out with gauze or sterile cotton, and the drain replaced. The patient should be made to lie on the

affected side, for the first few days following the operation to promote drainage. A loose dressing of soft fluffy gauze should be applied. In the course of five or ten days the cavity will be filled with brain substance and no pus will follow the removal of the drain.

Abscesses of the cerebellum are evacuated in almost the same identical way except as to the location of opening which may be made at any point over the cerebellum, the point of election is usually posterior to the descending limb of the sigmoid sinus.

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### PERICARDITIS, WITH A SPECIMEN.

J. R. Gilbert, M. D.

Read before the annual meeting of the Railway Surgical Association of the Southwest, El Paso, Texas, December 12, 1913.

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The serous covering of the heart is subject to several different varieties of inflammation, viz., (a) Plastic or Fibrinous, (b) Sero-fibrinous or Subacute, (c) Purulent, (d) Hemorrhagic, (e) Adhesive, and (f) Tuberculous.

It is not the object of this paper to describe all the different forms of pericarditis to you, but to call your attention to the pathology and the etiology of an acute plastic fibrinous pericarditis, as the specimen before you is of that form. My description shall be brief as I have nothing new to add to the literature on the subject.

Pathology.—The morbid changes are frequently localized and less frequently are general. At the onset the surface of the serous membrane is smooth, swollen, injected and some-

times ecchymotic spots may be visible. Soon it presents a greyish roughened appearance in consequence of the deposit of fibrin. This fibrin is whipped by the ever moving heart and is finally deposited on the surface in a roughened condition, leaving a honey-combed appearance, at times it resembles tripe, at other times two heavily buttered surfaces of bread pulled apart.

Etiology.—The general tendency is to consider all forms of pericarditis as secondary to some other infection. It perhaps more frequently follows rheumatism. Then might be placed in order nephritis, then we can take up a long list of infectious diseases, and, at the bottom of the list, according to those writers whom I have investigated, I find typhoid fever. This, however, is the probable cause in the case I wish to present.

These specimens are from a negro man, forty-two years of age, who had lived most of his life in a cow camp in this western country. This means that he spent practically all of his time in the open air. He was well proportioned and a powerful physical specimen until some seven years before his death. He sojourned in East Texas for some months, developed a case of rheumatism and came back to New Mexico, and recovered from the rheumatism, but was never strong after that time. In fact, he had every appearance of being ten years older than he was.

There was some arcus senilis, radical arteries were hard, and the hardness of the tissues of the inner heart shows that his rheumatism was probably followed with an endocarditis, tho no valvular lesion was de-

monstrable on auscultation. You will notice this kidney, it is a rare anatomical malformation, occurring about once in eleven hundred. On each kidney you see a hydro-nephrosis, one of these sacks contained about one-half pint of urine and you will note that that kidney is much smaller perhaps from absorption and from pressure. The sack on the other is smaller and the kidney is larger. Hydronephrosis is frequently a sequel to rheumatism.

His enfeebled condition during these seven years was in all probability due to the kidney, heart, and arterial degeneration caused by the rheumatic infection that wrote its history so indelibly upon this man's vital organs. This brings us to his last illness.

About September 20th, 1912, he began having fever which would run from 100° (a. m.) to 103° (p. m.); pulse, 120 to 130. There was diarrhea, tenderness in the right iliac region, dry pointed tongue with red edges. I made a clinical diagnosis of typhoid fever.

After five weeks of fever he had some cough, pain in epigastrium and under the sternum. Any nourishment taken into the stomach caused distress and if it was not vomited it would cause trouble in the bowels, and would finally be carried off with a diarrhea.

About Nov. 15 he began hiccoughing, which continued most of the time for ten days and was only relieved by death. I could not make out the cause of these symptoms.

To clear the diagnosis I held an autopsy and found the ileum greatly congested but could not make out any unsealed ulcers in Peyer's Patches, and

concluded that my typhoid fever, if that had been the infection, must have healed.

The pericarditis became an active disease when the cough, hiccough and pain in epigastrium began some ten to fifteen days before death.

The pericardium, both on the heart and sack, was covered with fibrin deposit and presented the appearance of tripe. There were only a few ounces of blood stained serum in the pericardium. This was evidently an acute condition as this flocculent fibrin was so fragile that much of it dropped off from handling. The pericardium was greatly thickened. (Presentation of specimens—heart and kidneys).

## Abstracts

### New and Non-official Remedies

Since publication of New and Non-official Remedies, 1913, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Non-official Remedies:"

**Agglutinating Sera for Diagnosis Purposes.**—These are the sera of animals (horses) immunized against various bacteria. For use a solution is added to a suspension of the bacterium to be tested, and after incubation for a certain period the mixture is examined.

**Agglutinating Serum for the Identification of Bacillus Paratyphosus A.**—Intended for use by the macroscopic method. H. K. Mulford Co., Philadelphia, Pa.

**Agglutinating Serum for the Identification of Bacillus Paratyphosus.**—Intended for use by the macroscopic method. H.



K. Mulford Co., Philadelphia, Pa. (Jour. A. M. M., Nov. 1, 1913, p. 1630).

Antistreptococic Vaccine (Scarlatina Prophylactic).—For description of Streptococcus Vaccine see N. N. R., 1913, p. 226). The Abbott Alkaloidal Co., Chicago.

Strepto-Bacterin (Scarlatina Bacterin) Polyvalent.—For description of Streptococcus Vaccine see N. N. R., 1913, p. 226. The Abbott Alkaloidal Co., Chicago, Ill. (Jour. A. M. A., Nov. 15, 1913, p. 1811).

Silk Peptone "Hoechst." — Peptone made from silk and standardized to a uniform rotary power. It is used for the detection of peptolytic ferments, either by changes in optical activity or by precipitation of tyrosin produced by its digestion. Parbwerke Hoechst Co., New York (Jour. A. M. A., Nov. 15, 1913, p. 1811).

Aene Bacterin Polyvalent.—For description of Aene Vaccine see N. N. R., 1913, p. 221. Abbott Alkaloidal Co., Chicago.

Coli-Bacterin Polyvalent.—For description of Bacillus Coli Vaccine see N. N. R., 1913, p. 221. Abbott Alkaloidal Co., Chicago.

Friedlander Bacterin Polyvalent.—For description of Friedlaender Vaccine see N. N. R., 1913, p. 222. Abbott Alkaloidal Co., Chicago.

Gonococcus-Bacterin Polyvalent.—For description of Gonococcus Vaccine see N. N. R., 1913, p. 223. Abbott Alkaloidal Co., Chicago.

Pneumo-Bacterin Polyvalent.—For description of Pneumococcus Vaccine see N. N. R., 1913, p. 224. Abbott Alkaloidal Co., Chicago.

Staphylo-Aene-Bacterin Polyvalent. — For description of mixed vaccines see N. N. R., 1913, p. 224. Abbott Alkaloidal Co., Chicago.

Staphylo-Albus-Bacterin Polyvalent. — Abbott Alkaloidal Co., Chicago.

Staphylo-Aureus-Bacterin Polyvalent. — Abbott Alkaloidal Co., Chicago.

Staphylo-Bacterins (Human) Albus-Aureus-Citreus.—For description of Staphylococcus Vaccines see N. N. R., 1913, p. 225. Abbott Alkaloidal Co., Chicago.

Strepto-Bacterin (Scarlatina Bacterin) Polyvalent.—Abbott Alkaloidal Co., Chicago.

Antistreptococic Vaccine (Scarlatina Prophylactic).—Abbott Alkaloidal Co., Chicago.

Strepto-Bacterin (Human) Polyvalent. —For description of Streptococcus Vaccines see N. N. R., 1913, p. 226. Abbott Alkaloidal Co., Chicago.

Typho-Bacterin Polyvalent. — Abbott Alkaloidal Co., Chicago.

Typho-Prophylactic.—For description of Typhoid Vaccine see N. N. R., 1913, p. 227. Abbott Alkaloidal Co., Chicago. (Jour. A. M. A., Nov. 22, 1913, p. 1900).

Arheol.—Arheol is santalol, the chief constituent of sandalwood. Its action is the same as that of sandalwood oil, but is claimed not to cause disturbance of the stomach or the kidneys. Arheol is marketed only in the form of Arheol Capsules, 0.2 Gm. Alexandre Astier, Paris, France (Jour. A. M. A., Nov. 22, 1913, p. 1900).

### Propaganda for Reform.

Deafness-Cure Frauds.—The name of the deafness cure quack is legion. Some carry an alleged cure for deafness as a "side-line," some sell on the mail-order plan their worthless "course of treatment," while still others, and these probably are in the majority, dispose of, at an exorbitant price, devices that are trivial, worthless and often dangerous. The fol-

lowing are some "deafness-cure" concerns: Dr. L. C. Crains Company (formerly Dr. Guy Clifford Powell), Chicago; Dr. Edward E. Gardner, New York City; George P. Way, Detroit, Mich., and George H. Wilson, Louisville, Ky. (Jour. A. M. A., Nov. 1, 1913, p. 1645).

The Friedmann Cure.—After studying the cases inoculated by Dr. Friedmann at Montreal, Ottawa, Toronto and London, Ontario, a committee of the Canadian Association for the Prevention of Tuberculosis has reported unfavorably on the treatment (Jour. A. M. A., Nov. 1, 1913, p. 1648).

Trypsogen.—Besides exploiting a clay poultice, "Antithermoline," the G. W. Carnrick Company appears to be chiefly concerned in the promotion of "internal secretion" specialties. Thus it markets the diabetes remedy, "Trypsogen" tablets, said to contain "the enzyme of the islands of Langerhans with the tryptic and amylolytic ferments of the pancreas" along with gold bromid and arsenic bromid; Secretogen Elixir, said to be "prepared from gastric secretin obtained from the pyloric antrum and pancreatic secretin from the duodenum, combined with the enzymes of the peptic glands, and one-twentieth of one per cent HCl;" Secretogen Tablets, said to be "prepared from prosecretin and succus entericus obtained from the epithelial cells of the duodenum, combined with pancreatic extract;" Kinazyme, "a preparation of extract of spleen, reinforced with trypsin, amyllopsin and calcium lactate." While great claims have been made for Tripsogen and while it has been most widely advertised it is the opinion of the most eminent students of the question that pancreas is not efficacious in diabetes. Trypsogen should be considered as an unscientific shot-gun mixture. When the

Council on Pharmacy and Chemistry paid less attention to the therapeutic worth of a proprietary preparation, both Antithermoline and Trysogen were admitted to New and Non-official Remedies. They were dropped some years ago, when the Council revised its rules (Jour. A. M. A., Nov. 1, 1913, p. 1649).

Radio-Active Waters.—All naturally occurring waters, even rain water, are somewhat radio-active. While the waters of Hot Springs, Ark., have been investigated by the Department of the Interior, this information has been suppressed "for administrative reasons." It is stated only that the waters are "radio-active to a marked degree," a statement which might have emanated from a patent medicine manufacturer (Jour. A. M. A., Nov. 1, 1913, p. 1649).

"Therapeutic" Names.—Claiming that physicians demand that they be supplied with "a pill for every ill" most pharmaceutical houses supply "Pills Gonorrhea," "Pills Spermatorrhea," "Pills Leukorrhea," "Pills Dysmenorrhea," etc. Therapeutically suggestive names for medicines led to thoughtless use by physicians and to counter-prescribing by druggists. That the use of therapeutic titles is not an economic necessity is illustrated by the fact that E. R. Squibb & Sons are discarding such titles (Jour. A. M. A., Nov. 1, 1913, p. 1650).

Mouth Washes.—Recent investigations seem to show that adherence of mucin caused decay of the teeth. So-called antiseptic mouth washes and alkaline washes do not remove the mucin and therefore do not prevent decay of the teeth. The vegetable acids such as fruit juices and diluted vinegar are the most successful agents for the removal of mucin (Jour. A. M. A., Nov. 8, 1913, p. 1718).

Pennyroyal, Tansy and other "Emmenagogue Oils."—An examination of the oils of pennyroyal, tansy, savin, rue, thyme, turpentine and of apiol proves that they have no specific or directly stimulating action whatever on the uterine muscles; on the contrary they prohibit the contraction of the uterus and even paralyze it. If these oils exhibit any emmenagogue or abortifacient action whatever, it is due to a general constitutional poisoning or gastro-intestinal irritation and not to any specific action in accord with the intent for which they are sometimes administered (Jour. A. M. A., Nov. 8, 1913, p. 1725).

Mouth Washes.—Such polypharmacy as represented by the complex solutions, official and proprietary, used as mouth washes is nonsense. In them the value of useful ingredients is obscured by the useless shrubbery which surround them. A dash of this and a dash of that in these mouth washes or gargles is simply playing to the galleries (Jour. A. M. A., Nov. 15, 1913, p. 1812).

The Action of Atophan.—It has been recognized that the administration of Atophan increased the elimination of uric acid and that there was a possibility that a greater production of uric acid is induced by the drug—a result which would scarcely encourage its use in therapy. Recent investigations, however, favor the view that the drug merely stimulates the kidneys to abstract from the blood a greater quantity of the purin end-product than it normally would (Jour. A. M. A., Nov. 15, 1913, p. 1818).

Baughn's Pellagra Remedy.—A booklet issued for Baughn's Pellagra Remedy, American Compounding Co., Jasper, Alabama, suggests symptoms of all kinds as an indication of pellagra. If you have any of these, the inference is that the "grim

spector," pellagra, has you in its grasp! Horror is piled on horror in the most approved "patent medicine" style, reaching as a grand climax a description of "the last stages" and closing with the peroration: "And the last stage, till now—the MAD HOUSE and DEATH." As the exploitation of this nostrum interfered with the attempts of health officers to eradicate pellagra in Alabama, it was analyzed in the A. M. A. Chemical Laboratory. The nostrum comes in two forms, capsules and a powder for external use. The capsules were found to contain charcoal, basic iron sulphate and a little quinine. The powder was composed of common salt and basic iron sulphate (Jour. A. M. A., Nov. 15, 1913, p. 1828).

Regulin.—Regulin is agar-agar (N. N. R., 1913, p. 20) to which some cascara preparation has been added. The product at one time was described in the Appendix to New and Non-official Remedies as follows: A mixture of agar-agar in a dry form with extract of cascara sagrada representing 15 per cent of an aqueous fluid extract of cascara sagrada (Jour. A. M. A., Nov. 15, 1913, p. 1832).

Waterbury's Compound.—Waterbury's Compound—called Waterbury's Metabolized Cod-liver Oil Compound until the A. M. A. Chemical Laboratory showed it contained practically no cod-liver oil—was one of the proprietary preparations advertised both in "display" form and also in the form of an "original article," in the Army and Navy Medical Record—a fraudulent publication that offered its editorial pages for sale. Physicians are now receiving from the Waterbury Chemical Company, a reprint of what purports to be an editorial from the Army and Navy Medical Record entitled, "One of America's Most Valuable Preparations." The preparation, of course,



is "Waterbury's Compound." (Jour. A. M. A., Nov. 15, 1913, p. 1830).

**Sensitized Virus-Vaccine.** — Besredka asserts that the injection of living germs sensitized in certain ways produces a more substantial immunity and greater production of antibodies than the injection of germs killed by heat or in other ways. In apes sensitized typhoid bacilli gave absolute protection, causing no fever and no reaction, while killed bacilli failed to protect adequately. As a result of these experiments a number of "sensitized virus-vaccines" have been prepared and the anti-rabic vaccine used in France is now a sensitized virus. Before the employment of the sensitized typhoid virus-vaccine can be considered, much evidence must be produced that there is no danger of producing typhoid carriers and that this vaccine gives any better protection than the vaccines now in use. Similar objections hold against other vaccines of this kind and at present the obstacle to the use of such living germs for protective purposes would seem to be quite impassable (Jour. A. M. A., Nov. 15, 1913, p. 1814).

**Berledets.**—This is an anti-fat remedy sold under the claim that dieting and exercise are unnecessary, but the directions for which recommends moderation in diet and free exercise. Examination in the A. M. A. Chemical Laboratory showed the nostrum to consist of tablets, each containing about 9 grains boric acid, along with corn starch and milk sugar. It is evident that Berledets will cure obesity only by seriously interfering with digestion (Jour. A. M. A., Nov. 22, 1913, p. 1917).

**The Morley Ear-Phone.** — The Morley Ear-Phone, Morley Company, Philadelphia, Pa., is nothing more or less than the old, well-known Toynbes artificial drum-head.

It consists of a circular piece of oiled silk about one-quarter inch in diameter, through the center of which a piece of silk thread has been passed, for the purpose of holding the oiled silk in position. A small piece of flexible tubing comes with it to aid in inserting the device in the ear. The indiscriminate sale of a device of this sort, especially at exorbitant prices and under fraudulent claims, is not merely an injury to the purse, but a distinct menace to the health of the deaf (Jour. A. M. A., Nov. 22, 1913, p. 1919).

**Veroform Germicide Omitted from N. N. R.**—Veroform Germicide is described in New and Non-official Remedies, 1913. It is a formaldehyde soap solution, containing 20 per cent of formaldehyde. The report of the U. S. Public Health Service on commercial disinfectants having shown Veroform Germicide to have a phenol co-efficient of but 0.43, the manufacturers of the preparation were asked to present evidence to justify the term "germicide" in the name and the claim that it has more bactericidal effect than phenol. As the Veroform Co. produced no evidence to substantiate the questioned claims, the Council on Pharmacy and Chemistry voted to omit the preparation from New and Non-official Remedies (Jour. A. M. A., Nov. 22, 1913, p. 1920).

**Pulmonol.**—Pulmonol is a consumption "cure" put out by the Pulmonol Chemical Co., New York. As always in the case of consumption "cures," the testimonials issued may be divided into two classes, those who really had tuberculosis and those who did not have it. Investigation of some of the testimonials given some time ago, generally show that those who relied on the nostrum are dead while those who got well never had tuberculosis. Examination in the A. M. A. Chemical Laboratory indi-

cated that each fluidounce of Pulmonol was approximately equivalent to 29 gr. of potassium guaiacol sulphonate, 10 gr. of sodium benzoate and 1-24 gr. of strychnine sulphate (Jour. A. M. A., Nov. 29, 1913, p. 1998).

## Book Reviews

The New (4th) Edition.

### Diet in Health and Disease

By Julius Friedenwald, M. D., Professor of Gastro-Enterology in the College of Physicians and Surgeons, Baltimore; and John Ruhrah, M. D., Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Fourth edition, thoroughly revised and enlarged. Octavo of 857 pages. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$4.00; half morocco, \$5.50 net.

This edition of "Diet in Health and Disease" by Friedenwald and Ruhrah contains a wealth of information arranged so as to be readily available for reference by consulting the detailed list of contents or the comprehensive index. As the authors well state in their preface, "The whole subject of metabolism and its relation to dietetics reminds one of a picture-puzzle, where not only one picture has been cut up into intricate shapes, but where numerous pictures have been cut up and confused." Any attempt, therefore, to bring these confusing bits of information together into a completed picture should be welcomed by the student of dietetics as well as the general practitioner.

The book is written in a clear and readable style which should make it popular. The chapters on "The Chemistry and Physiology of Digestion" and "Classes of

Foods" present in brief and concise form the essential points necessary for a rational understanding of the principles and practice of dietetics, and for the understanding of the chapters that follow. Two main points are to be considered in arranging diets for any purpose, namely, to supply the proper kinds of food and in the proper amounts. For this purpose, the tables showing the chemical composition of common foods and their calorific values are of great importance. Especially valuable are the tables giving the values of foods in terms of "household" measures and the weights of 100-caloric portions.

In this connection it may be well to note that the authors rightly emphasize the dangers attending the choosing of diets from too limited sources or the adoption of "fads" in dieting.

The "Dietaries of Public Institutions," as given, are suggestive and should prove valuable in planning dietaries. For prescribing diets in special cases, "The Rapid Reference Diet Lists" will, no doubt, be found especially useful.

Certain errors should be noted. The table on page 67, giving "Chittenden's Suggested Dietary for a Man of Average Weight," gives the "protein" values under "fuel value" and vice versa. Also in this table, Chittenden gives the fuel value of one-half teacup of bread pudding as 150 calories instead of 159. On page 270, line 21, evidently a "gram" is meant instead of a "grain." The paragraph on "Saccharin" under the heading of "Cooking of Foods" obviously belongs to the preceding section.

This book, in common with most revised editions, contains considerable matter that has not been thoroughly revised. It is difficult to understand why the authors continue to use a classification of the "proteins" that was adopted about 1898,

when a better and more detailed classification has been adopted and is now being used by the leading authorities in this country and abroad. Owing to the confusion in the use of the term "protein" in the literature of today, it is to be regretted that the authors did not lend a helping hand in bringing about the general adoption of a clearer and more logical classification of these complex compounds. It also seems strange to find fats referred to as "hydrocarbons" in a book that is supposed to be "up to date." Reference is frequently made to the "casein" of peas and beans without any qualifying terms, leaving the impression that this protein is identical with the casein of milk. Why not refer to it simply as protein or consistently use the term "legumin," since we have a specific name?

Aside from these few adverse criticisms, the fact remains that this is a valuable work and should serve a useful purpose by giving the student and the practitioner, in concise form, the main facts and principles upon which the modern practice of dietetics is based.

F. W. CHRISTENSEN.

### **A Clinical Manual of Mental Diseases**

By Francis X. Dercum, M. D., Ph. D., Professor of Nervous and Mental Diseases, Jefferson Medical College, Philadelphia. Octavo of 425 pages. Philadelphia and London: W. B. Saunders Co., 1913. Cloth, \$3 net.

The development of the science of psychiatry has been so slow, that the appearance of new text books on the subject from year to year seems almost uncalled for. So far as many of the problems go, we are apparently no nearer a solution than when Burton wrote his "Anatomy of Melancholy;" we are still but "little children stumbling in the dark." This may seem a

pessimistic view-point, in the light of the "newer psychology;" but the general practitioner needs established facts to help him in his work. New theories are entertaining enough to the man with a philosophic mind, an hour to spare, and carpet slippers before an open hearth. However, this winter evening philosophy will not help much when he is called upon to quiet the ravings of mania, or re-establish the equilibrium of a mind running away with itself because of a kink in its hair-spring.

While there may be "nothing new under the sun," there is always a new way of presenting an old thought. Nowadays we delight in getting the antique furniture left by our ancestors, out of the garret, rubbing off the dust, repairing and repolishing until we find we have under the dust and cobwebs a thing of rare beauty and serviceability.

Professor Dercum has ransacked the psychopathic garret, has rejuvenated and refreshed, and has produced first of all an article useful and then polished it to a point where it reflects such of the modern ideas that are sufficiently illuminating to cast a shadow.

Some months ago Prof. Dercum announced his confession of faith so far as methods of teaching go, in an article in the Journal of the American Medical Association, he lays down as his preliminary hypothesis that psychiatry cannot be dissociated from internal medicine, that the insane patient is eminently a sick patient and must be studied as such.

This idea, repeated in the preface of his book, dominates the whole work. From beginning to end the reader is not permitted for a moment to lose sight of the fact that an insane mind is a sick mind, and that every organ and tissue of the body is sick, sick, sick, in the indissoluble sympha-



thy which exists between the whole and all its parts. The Apostle Paul believed in this principle, some since his time have tried to break away from it, but it is too firmly established to warrant discussion.

Professor Burr of the University of Pennsylvania says that all the teacher of psychiatry can attempt to do, or should attempt to do, is to lay a solid foundation of facts in the student's mind, upon which he can build his superstructure of theory with such material that may seem suitable to him in after years.

Professor Dereum's book is a good foundation work, he has confined himself to the facts pretty closely, and has reserved theorizing for a special and mercifully short chapter at the end. It is of course necessary and desirable that the student of the day should know something about the trend of modern thought, false though it may be. Nothing so quickly destroys a student's confidence in his teacher than to find matters never touched on in the classroom being actively discussed in the outside world. If, however, he can feel that his teacher "knows all about these things," even though he does not "think much of them," the student is satisfied. This does not mean charlatanism; it is merely one of the sordid facts of life which we cannot "repress" no matter how hard we try.

Together with many of the more prominent teachers of insanity, Prof. Dereum does not find the tenets of the Freudian school to be in harmony with his own "complexes," and particularly deplores the tendency to explain all psychopathic phenomena as the result of sexual traumata, particularly those occurring in childhood. He is heartily in accord with Prof. Burr, already quoted, who says:

"It (Freudism) is a part of the sexual

mystic philosophy which is becoming more and more widespread and is itself a symptom of the madness of the times. It contains so little truth and so much error as to be useless."

Nevertheless Prof. Dereum seems to see some possibilities in the new theories, for he says in the chapter on the psychologic interpretation of symptoms:

"However, it is not improbable that an analysis of a dream, like psychoanalysis in general, may at times assist in unraveling an obscure symptom group."

As laid down in the preface, practicality, particularly from the student's view-point, is the keynote of the book. Beginning with an introductory chapter on definitions, the author goes on to classification, grouping the various diseases of the mind according to their clinical relationships, rather than etiologically.

The first group—"Delirium, Confusion and Stupor"—is treated in detail, this forming the basis for the discussion of the more complex diseases.

The second group comprises "Melancholia, Mania and Circular Insanity," a natural grouping which renders the study of these closely related states comparatively easy.

Dementia Praecox and Paranoia, under the denomination of the "Heboid-Paranoid Group," constitute group three. While the "Neurasthenic-Neuropathic Insanities" and the Dementias are represented by groups four and five respectively.

Whatever criticism may be made of this classification from a strictly scientific view-point, there can be no doubt of its fitness for presenting the subject to the hard driven fourth year student, for whom it was primarily intended, the book itself being based on the author's lectures to his students.

In keeping with this idea all discussions of treatment or psychologic interpretations are reserved for special chapters toward the end of the book, except in so far as the proper understanding of the text demanded a departure from this rule.

Throughout the subject matter has been condensed so far as could be done without sacrificing clearness, or doing violence to the subject, yet all the essential details are preserved, and the whole is bound together in logical sequence as only a teacher of long experience can handle his subject, each part preparing the mind for what is to come after, so that the reader can almost anticipate what is coming next. Were we dealing with a work of fiction this would hardly do, but for a work of the text-book class its value is great.

The general practitioner is a student all his life, he must be, and he is so situated that he has to grasp at much of his knowledge at such times as he can find, and his needs are not dissimilar from those of his prototype on the benches of the lecture room. While Prof. Dercum has had the needs of the undergraduate in medicine largely in mind, he has not forgotten the man upon whom after all the outcome of the specialist's endeavors must largely depend, the general practitioner who first sees the case, who knows all the ins and outs of the family history and personality of the patient, whose work if done well furnishes the solid foundation it may be for cure, or if illy done negatives every effort subsequently made upon behalf of the sufferer.

Throughout the work the views of Kraepelin are frequently quoted and though he comes from what Lord Palmerston called "that land of damned professors," most of Kraepelin is good for Americans and psychiatry owes him a

debt, which like all debts of like nature, will scarcely ever be paid.

Professor Dercum's book may be unhesitatingly recommended to the undergraduate and to his fellow student, the general practitioner, as well.

CHARLES TURNER SANDS.

We are pleased to acknowledge receipt of the December number of the *Annals of Surgery*. This number is a special Anaesthesia Number and contains, besides the usual number of excellent papers on surgical subjects, papers read at the first annual meeting of the American Association of Anesthetists.

More and more is the demand for skilled hands and trained minds being placed in charge of the administration of the anaesthetic for any purpose, no matter how trivial the operation or how short the time of anaesthesia.

The papers presented in this number discuss the subject from all view points and contain much valuable information. We know that they will be read with interest by all who are fortunate enough to see them and they should be read by anyone who aspires to or claims to be either a surgeon or an anaesthetist.

*Annals of Surgery* is published by the J. B. Lippincott Company, Philadelphia, Pa., and is a monthly, the price of which is five dollars per annum.

### Disease and Its Causes

By W. T. Councilman, M. D., LL. D., Professor of Pathology, Harvard University. New York: Henry Holt and Company, 50 cents net, postage 8 cents.

The education of the public as to the causes of disease with a view to checking its ravages and eliminating epidemics is,

probably, the most important work before the medical profession today. Prevention of disease is a public matter and not the work of any one profession, hence any information for the public from reliable and influential sources is to be welcomed.

Doctor Councilman has prepared a most readable and thoroughly up-to-date work under the title "Disease and Its Causes" which has just issued from the press of Henry Holt and Company as one of the volumes of the Home University Library.

We would expect a particularly valuable contribution of this sort from the pen of one so well prepared by knowledge and experience as is Doctor Councilman and we are not disappointed in our expectations. We are told, in the preface, that the endeavor has been to "portray disease as life under conditions which differ from the usual. Fifty years ago the extent of the unknown, and at that time insoluble questions of disease, was much greater than at present, and the problems now are in many ways different from those in the past."

Again: "The book is not written for physicians."

Again: "It has been assumed that the reader has some familiarity with elementary anatomy and physiology, and these subjects have been considered only as much as is necessary to set the scene for the drama."

The work is in twelve chapters. Chapter one discusses the structure and properties of living things. Chapter two is devoted to a study of health and disease. In chapter three is taken up the question of growth with a description of tumors and their growth and relation to health and disease, while in the next chapter the re-

actions of the various tissues of the body are rapidly surveyed. The infectious diseases are described in chapter five, considerable space being given to a review of the development of knowledge of epidemics. Disease producing organisms are described in the next chapter, while two chapters are given to a discussion of infection. Chapter nine tells of disease carriers, susceptibility, occupation and environment. Inheritance as a factor in disease is the basis of chapter ten, while chronic diseases, with disease of the heart as an example, receive consideration in chapter eleven. The last chapter is devoted to a review of the development of medicine in the past fifty years, and to the development of some of the conditions that act as factors of disease.

We are pleased to note that the distinguished author concludes with the statement that the "most important aid in the future to the influence of preventive medicine must be the education of the people so that the conditions of disease, the intrinsic and the extrinsic causes and the manner in which these act, shall all become a part of general knowledge, and the sympathy of the people with health legislation and their active assistance in carrying out measures of prevention may be obtained.

The book is written in plain and simple language so as to be easily understood by the general public. It states facts in a convincing manner and speaks to the great mass of our people.

We are glad to welcome this excellent manual and recommend it to those of our readers who are in need of such a volume either for themselves or for their patients and friends.

McB.



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N. Mex. Med. Journal

# The New Mexico Medical Journal

Volume XI

FEBRUARY, 1914

No. 5

E · D · I · T · O · R · I · A · L

*The New Mexico Medical Journal is not responsible for the opinions expressed by any of its contributors.*

**You want a larger and better journal  
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JOURNAL."**

**FAVOR THOSE WHO FAVOR US**

It frequently occurs that the editor of a state journal is furnished with an abstract of some paper for publication; it occasionally happens that this abstract comes from the author of the paper as an "author's abstract". That care must be used in publishing these abstracts is unquestionable as the following correspondence will show.

New York, September 12th, 1913.

R. E. McBride, M. D., Editor,  
New Mexico Medical Journal,  
Las Cruces, N. Mex.

My dear Doctor,

Please find enclosed herewith author's abstract of an article entitled, "TURTLE TUBERCULIN IN THE TREATMENT OF TUBERCULOSIS", which appeared in yesterday's issue of the New York Medical Journal. It occurred to me that an abstract from this article, appearing in your most excellent Journal, would be appreciated by your extensive subscription clientele. I trust that you may do me the courtesy of giving this extract space in your next issue. I beg to assure you that the courtesy will be ap-

preciated, and if ever an opportunity occurs, wherein I may reciprocate, I am yours to command.

Praying your favorable consideration for this request, I beg to remain

Most sincerely and faithfully yours,  
—M. D.

This letter was signed by a member of the A. M. A., and of the New York State Medical Society.

The abstract was not published.

Following this letter and abstract, there came to us under date of November 3rd., 1913 a printed letter from the Piorkowski laboratories containing a reprint of the article referred to in the first letter together with a reprint of a second article under the title "A Clinical Report of the Value of Turtle Tuberculin in the Treatment of Tuberculosis." This letter extols the virtues of turtle tuberculin and offering it to the profession in sealed tubes of 1 c.c. each at the uniform price of fifteen dollars per tube. This letter closes thus: "We shall be pleased to hear from you about any case of tuberculosis and will gladly give you, without charge, suggestions as to treatment."

Following this letter from the laboratories we received a second letter from the doctor who had written the first letter again enclosing an "author's abstract". This letter we likewise give in full, as follows:

New York, Nov. 19th, 1913.  
R. E. McBride, M. D.

Las Cruces, N. Mexico.

Dear Doctor:

Please find enclosed herewith abstract of an article entitled, "A Clinical Report on the Relative Value of Turtle Tuberculin in the Treatment of Tuberculosis", which appeared in the New York Medical Journal of October 25th.

It occurred to me that an abstract of this article appearing in your columns would be appreciated by your extensive subscription clientele, but up to the present time, I have been so

swamped with detail work in connection with the inquiries that have naturally come to me from the profession and the laity since the publication of my articles on turtle tuberculin that I have been unable to make an abstract.

If you can, at this late date, do me the courtesy of printing the extract in your next issue, I can assure you of my appreciation, and if ever an opportunity occurs wherein I may reciprocate, I am your to command.

Sincerely yours, —————M. D.

This abstract was not published.

The next exhibit in this interesting series is as follows:

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## PUBLIC HEALTH REPORTS

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VOL. 29

JANUARY 30, 1914

No. 5

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### PIORKOWSKI LABORATORIES NOT LICENSED

Information has recently been received from various sources to the effect that, through agents and printed circulars, the statement is being circulated that the Bacteriol. physiolog. Institut (Piorkowski Laboratories), Berlin, Germany, has been licensed by the Treasury Department for the importation and sale in interstate traffic of "turtle tuberculin." These statements seem to emanate from so-called Piorkowski Laboratories, located, or represented as about to be located, in various cities in this country.

This statement is contrary to fact. After an inspection of the establishment by a representative of the Treasury Department and an examination of samples of the products at the Hygienic Laboratories of the Public Health Service, the Bacteriol. physiolog. Institut (Piorkowski Laboratories), Berlin, Germany, was refused a license for the importation and sale of their products in interstate traffic.

Under the act approved July 1, 1902, regulating the sale of viruses, serums, toxins, and analogous products in interstate traffic, such preparations may be imported without license, provided they are not sold or intended for sale but for scientific experiments.

The above-mentioned act requires that each package of virus, serum, toxin, antitoxin, or analogous product must be plainly marked with the proper name of the article contained therein, and the name, address, and license number of the manufacturer. Since this provision is strictly enforced



no difficulty should be experienced by anyone in determining whether a particular product has been propagated in a licensed establishment.

Persons or firms engaged in the sale of unlicensed products in interstate traffic are liable to a penalty consisting of a fine not exceeding \$500, imprisonment not exceeding one year, or both such fine and imprisonment, in the discretion of the court.

We have no comments to make at this time, as we are not prepared to pass judgment upon the value of turtletuberculin of any manufacture, but we respectfully protest against the effort to exploit untried products through the columns of state journals under the guise of "Author's Abstracts."

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The first county society to make its complete report to the State secretary for the year 1914 was the Chavez county society. In this, as in all things pertaining to the good of the profession in general and of the New Mexico Medical Society in particular, the Chavez county society is to be found in front. For three years this society has seen to it that the Journal has been treated liberally in the matter of Roswell advertisements and it is a matter of regret that the contract has not been renewed for another year. While nothing has been said as to reasons, the managing editor is sure that the members of the Chavez County Medical Society feel that the other county societies have not done their part in soliciting local support for the Journal and adding to its meagre income. We repeat that no complaint has been made, but for obvious reasons (the advertising pages of *Our Journal*) we have ventured to state a reason.

In this connection it is desired to again call the attention of the members of the New Mexico Medical Society to the fact that we need more local support.

## TESTIMONY IN

### INSANITY CASES

There are few, if any, subjects in the entire domain of medicine that present as large a field for honest difference of opinion among experts as does that of the diagnosis and responsibility of the criminal who is alleged to be insane. This field is very much broadened when honest men are called to testify who are not *bona fide* experts, and it is multiplied many times when non-experts give testimony according to the side on which they are, and for a fee. How can a jury of twelve men be expected to render a just verdict in these difficult and obscure cases, when they are untrained in the subject of mental diseases, and not assisted by truly disinterested and expert opinions? They are not qualified to make a diagnosis in such cases, which they really do when they say that a man is, or is not, responsible for the crime which he has committed. Where human life and liberty are concerned, both sides are entitled to the most authoritative opinions. The only way that disinterested expert testimony can be obtained in such cases is for the accused party to be examined by a committee of experts appointed and paid by the state, and their conclusions

given to the jury AS FACTS, WHICH THEY HAVE NO RIGHT TO ALTER. If such a committee cannot form an accurate opinion of the case, it would be impossible for a collection of twelve laymen to do it. An occasional mistake may, even then, be made, but the probability of that would be reduced to a minimum. The trend is toward employment of experts by the state, and some day this will be incorporated into the laws of all of the states of our country. The greater credit for those that are the first to do it.

P.

#### THE VERDICT IN CASES OF CRIMINAL INSANITY

The verdict in the cases of insane persons who are guilty as charged is "Not guilty on the ground of insanity." This is done to relieve the defendant of responsibility for his acts. A degenerate, who is somewhat mentally deficient may, or may not be, responsible for his conduct; there is plenty of room for difference of opinion in many of these cases. But when a man is guilty as charged, and is declared innocent by a jury on the grounds of insanity, it does not alter the fact, although it satisfies the law. For the past thirty years in England the verdict in such cases has been "Guilty but insane." The committee of the Bar Association of New York on the commitment and discharge of the criminal insane has suggested to the supreme court and district attorneys of that state that our verdict be discarded and the English one adopted. Let us hope that all states will take this progressive step.

P.

#### GOOD ROADS

##### PREVENT DISEASE

Few persons, on first thought, would see any possible connection between good roads and good health. Yet the State Board of Health of Kansas says that good roads can and will prevent disease. How? By the removal of weeds and trash. Weeds and trash prevent the prompt evaporation of moisture and promote retention of ground water. This makes ideal breeding spots for mosquitoes, flies and other insects, which are known as disease carriers, not to mention chinch bugs, hoppers and other insects which are crop damagers. Furthermore, an undergrowth of weeds invites the dumping of garbage and manure by offering concealment, of which fact careless and thoughtless people are prone to take advantage, thus increasing the facility of insect breeding and providing these insect carriers with proper material for disease transmission. Good roads also prevent disease by providing good drainage. Many farms have no means of drainage except by ditches along roadways. Open ditches, clear of brush and debris, with hardened surface and proper fall, afford these farms the opportunity of ridding themselves of many a stagnant pool. The removal of weeds, proper road grading, surface hardening and oiling, insures prompt drainage of all pool, ditch and surface water, removing the possibility of insect breeders, for none can multiply without moisture. Road oiling is in itself destructive of insect larvæ, especially mosquitos—a well known fact. Dry roads offer pedestrians, and notably children who are compelled to walk to and from school,

dry shoes and feet. While colds are due to specific germs, yet it is a well-known fact that cold, wet feet and chilled limbs lower the resistance of individuals and make them more favorable subjects for infections of the respiratory passages, including pneumonia and tuberculosis. Good roads prevent disease by setting an example to adjoining farm premises. Good roads promote travel and set an example to the farmer whose premises are bordered by them. The comparison of a well-graded, clean highway with an unkempt and trashy barnyard adjoining is sufficient to stimulate every landowner to a clean-up. Pride compels him to offer to passers-by a neat-appearing and attractive house and barnyard. Results are only too obvious. Good roads are active disease prevention agencies, aside from their financial and commercial value.

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#### THE HEALTH OF SCHOOLCHILDREN

The report for 1912 of the medical officer of the British board of education has just been issued. It contains an exhaustive account of the measures which are being taken throughout the country to safeguard the health of schoolchildren. Uncleanliness still occupies a large share of the time and energy of the officers of the school medical service, but the returns show a decided and progressive improvement, and the grosser forms of uncleanliness are now rare as compared with the conditions when medical inspection was instituted in 1908. There are about six million children in the public elementary schools. About 10 per cent suffer from serious defects of vision. Among the causes given are heredity,

early eye-strain, defective lighting, infectious diseases and neglect in obtaining early medical advice. From 1 to 3 per cent. suffer from defective hearing; from 1 to 3 per cent. have suppurating ears; about 10 per cent. have adenoids, inflamed tonsils or enlarged cervical lymph-nodes requiring surgical treatment; 1 per cent. have ringworm; 1 per cent. suffer from tuberculosis of readily recognizable form; from 1 to 2 per cent. have heart-disease; from 30 to 40 per cent. have unclean heads or bodies, and more than half the children are in need of dental treatment.

In five directions school hygiene has undergone evolution. There has been a steady improvement in the routine work of medical inspection, and ancillary undertakings. There is less "leakage," more following up and more accurate clinical examination. Secondly, there is a fuller differentiation of abnormal children and a tendency on the part of authorities to modify the school curriculum in their behalf. Much time and labor are now being devoted to mentally defective, tuberculous, stammering and frail or retarded children. Thirdly, there has been an enlargement of the conception of the sphere of influence of the school medical officers. Education authorities are finding that though they have been appointed in the first place merely to inspect children, they may fill a very useful place in the educational system. Fourthly, there has been a marked advance in respect to medical treatment both in quality and quantity. Lastly, the intimate relation between school hygiene and education is becoming recognized and its application understood. The equipment of the school, the char-



acter of the teacher, the importance of physical exercise and manual work, the relation of the leaving child to the national insurance system, to industrial employment, to further education in secondary schools, and to its own home life, are now receiving attention. Thus the school medical work and the issues arising therefrom, says the London correspondent of *The Journal of the American Medical Association*, are beginning to form an integral part of our educational system.

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## EYESIGHT AND

### AUTOMOBILE DRIVERS

Owing to the rapidly increasing numbers of automobiles, used for business as well as for pleasure purposes, every state should require that all applicants for license to drive a motor vehicle pass an eyesight test. All railroads and many electric car-line companies require such a test. Yet, in the great majority of states, the prospective driver of an automobile need only affirm that he has no physical or mental infirmities. When one stops to consider that a railroad engineer drives over a steel track, guarded by signals and watchmen, and over a route with which he is thoroughly familiar, whereas the autoist drives over any road he chooses, not protected by lights and signals, and in some cases traveling almost as fast as a locomotive, it is plainly imperative that he possess as good eyesight as the man in the engine cab. If one eye is highly defective the field of vision is greatly impaired and the driver less able to maneuver his car in an emergency. Paris, Munich and other European cities have seen the necessity of an examination of the eyes of all taxi-drivers

and are strict in the enforcement of this protective measure. It is more than likely that defective vision is next in order of frequency to the overuse of alcoholic drinks as a cause of automobile accidents. We can, and should, protect pedestrians and drivers of vehicles from injury to a much greater extent than we do. Each applicant for a license to drive a motor vehicle should be required to give satisfactory proof of at least moderately good vision.

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Four hundred men and women of prominence, comprising the first representative group of scientific experts ever gathered in America for that purpose, met in Battle Creek, Jan. 8-12, to assemble evidence of race deterioration and to consider methods of checking the downward trend of mankind. The meeting was known as the First National Conference on Race Betterment. Through the co-operation of the press, the objects and aims of the Conference have been very widely disseminated and a resultant influence for better race ideals is anticipated.

Already, the effect of the Conference is apparent in Battle Creek where popular interest in mental and physical efficiency was awakened by a series of public school tests which showed an alarming percentage of defective children in all grades.

The Conference had its inception in the efforts of four men, particularly interested in race betterment—Rev. Newell W. Wight Hillis, pastor of Plymouth Church, Brooklyn, N. Y.; Dr. J. H. Kellogg of the Battle Creek Sanitarium; Sir Horace Plunkett, former minister of agriculture for Ireland, and Prof. Irving Fisher of Yale Univer-

sity. At the invitation of a central committee chosen largely by these men, fifty men and women of national prominence in the fields of science and education consented to share in the program. Their addresses, together with open discussion of many of the points considered, constituted a very widespread study of all phases of evident race degeneracy and the advocacy of many ideas of reform. Some of the suggested methods of improvement are frequent medical examination of the well, outdoor life, temperance in diet, biologic habits of living, open air schools and playgrounds, the encouragement of rural life, the segregation or sterilization of defectives, the encouragement of eugenic marriages by requiring medical certificates before granting license and the establishing of a eugenics registry for the development of a race of human thoroughbreds.

Among those having a share in the program were: Rev. Newell Dwight Hillis, Jacob Riis, Judge Ben B. Lindsey, Booker T. Washington, Dr. Victor C. Vaughan, Dr. S. Adolphus Knopf, Dr. C. B. Davenport, Dr. J. N. Hurty, the Very Reverend (Dean) Walter Taylor Sumner and many others of equal prominence.

Some of the interesting statements of the Conference are summarized as follows:—

"It will be no easy task to improve the race to the point where there will be no dependent children, but the elimination of the dependent child will be one of the best indices of the superiority of our national stock."—Dr. Gertrude E. Hall, New York State Board of Charities.

"I believe that a great deal can be

done by publication of facts as to the physiological effects of alcohol, in the way of inducing educated and intelligent people to conserve their health by limiting the use of alcohol or giving it up altogether."—Henry Smith Williams, Author.

"Eugenics does not eliminate romance. We eugenisists believe romance should be retained. Through the past it has proved a good thing."—Prof. Roswell H. Johnson, University of Pittsburgh.

"In order that the race may survive it will apparently be necessary to make eugenic selection of healthy mothers and to provide that the cost of bearing and rearing children shall be equally shared by all."—Prof. J. McKen Cat-tell, editor *Popular Science Monthly*.

"The boys are learning that they have a calling just as sacred as the call to motherhood and that is the call to fatherhood."—The Very Reverend (Dean) Walter Taylor Sumner of Chicago.

"The negro in the south, with all his weaknesses and handicaps, is not yet in any large measure, in the ditch."—Booker T. Washington, principal of Tuskegee Institute.

"We must cultivate pure blood, instead of blue blood, if we would develop a race of human thoroughbreds."—Dr. J. H. Kellogg, Superintendent Battle Creek Sanitarium.

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At the last meeting of the New Mexico Board of Health and Medical Examiners the following licenses were issued:

#### LICENSED UPON DIPLOMA.

Gaius F. Brooks, Vanderbilt University, 1890.

James R. Davis, Northwestern Uni-

versity, Chicago, 1912.

Samuel J. Benoit, Baltimore University, 1904.

Joseph W. Lackey, University and Bellevue Hospital, 1899.

Charles S. Skaggs, St. Louis University, 1907.

Denna C. Daniel, University of Louisville, 1912.

John J. McKibbin, Rush Medical, 1882.

Elliott C. Prentiss, George Washington University, 1900.

Ernest J. Hairston, Louisville Medical, 1904.

#### LICENSED UPON EXAMINATION.

Howe K. Riddle, Eclectic Medical, Cincinnati, 1913.

John M. Rumph, Southern Medical, Atlanta, 1893.

Percy L. McDade, Fort Worth University, 1911.

James H. Cody, Ensworth Medical, 1891.

#### LICENSED UPON RECIPROCITY WITH OKLAHOMA.

W. LeRoy Bonnell, Cleveland Homoeopathic, 1907.

John W. Duke, Memphis Hospital Medical, 1891.

James O. Wharton, Physco-Medical Dallas, 1906.

Francis B. Fite, Southern Medical, 1886.

Doctor John F. Lilly of Albuquerque died recently following an operation for appendicitis. Doctor Lilly was a graduate of the Cooper Medical College of San Francisco, class of 1897. He practiced medicine in Oakland, California, until about three years ago when he came to New Mexico for his health. The climate proved beneficial and for a year he had practiced in Albuquerque with much success. The acute appendicitis so lowered his resistance, that his tuberculosis again became active resulting in his untimely death.

Doctor Lilly was 44 years old and besides his membership in his State and County societies, he was a member of the American Medical Association. The body was sent to Oakland, California, for burial. The Bernalillo County Medical Society adopted resolutions of sympathy.

A systematic advertising campaign is to be started to boost the climate of Albuquerque. Committees have been appointed and subscriptions are being raised. The city counts on \$500 a month with which to herald the wonderful climatic advantages of the Duke City.

Doctor George W. Harrison, formerly of New Mexico, and one of the old members, was a visitor at the last County Society meeting. L. S. P.

## County Society Notes

### BERNALILLO COUNTY.

Doctor McChesney of New York City is now located at Albuquerque. He is connected with the work of the Pacific Mutual Life Insurance Company.

The officers of the Chavez County Medical Society for the year 1914 are as follows: President, Dr. H. A. Ingalls; Vice-President, Dr. W. L. Buchly; Secretary-Treasurer, Dr. C. M. Yater; Delegates, Drs. C. F. Beeson and W. T. Joyner; Censors, Drs. C. M. Mayes, J. W. Kinsinger and R. L. Bradley.



The Las Vegas Medical Society held the first meeting of the year on Wednesday evening, Jan. 21. The following officers were elected to serve during 1914: President, W. E. Kaser; Vice President, Wm. Howe; Secretary and Treasurer, F. H. Crail; Delegates to the New Mexico Medical Society, M. F. Desmarias and F. H. Crail; Board of Censors, W. R. Tipton, E. B. Shaw, C. S. Losey.

Dr. H. M. Smith read a paper on Dystosia, which called forth a spirited discussion.

The Society starts the year with a membership of sixteen; we expect to have monthly meetings and to do something worth while at each one of them.

F. H. CRAIL, Secretary.

## Original Articles

### TYPHOID FEVER TREATMENT, PREVENTION AND IMMUNIZATION.

S. A. Milliken, M. D.,  
Pinaros Altos, N. M.

Read before the 32nd Annual Meeting of  
the New Mexico Medical Society, Albuquerque, N. M., October 3rd, 1913.

In 1870, in the Prussian army, aggregating about 230,000 men, there were 73,396 cases of typhoid fever reported, with about 5,500 deaths, over 17,000 cases with about 1,500 resulting deaths developing in one month; in the English army in 1897 there were over 9,000 cases with about 800 deaths in a force aggregating less than 40,000, and in the army of the United States during the last eight months of 1898 there were almost 21,000 cases

reported with about 1,600 deaths in a body of only a little over 100,000 men.

In 1904 in Illinois there were about 15,000 cases with about 1,800 deaths; in Indiana there are approximately 20,000 cases annually, with about 1,000 deaths, and in the entire United States during the period 1901 to 1903 inclusive there were approximately 500,000 cases annually, with a death rate of over 40,000 annually.

Similar examples, based on the most reliable statistics, showing the appalling loss from this disease can be multiplied almost indefinitely.

It can scarcely be doubted by anyone who will in the light of our present knowledge carefully study the literature of the period, that a large part of the cases of so-called typhus occurring in the early part of the last century and prior to that time were typhoid, and a careful study and most thorough investigation carried out during the last fifteen years prove that even up to the present time a large proportion of the cases which are diagnosed as "continued fever," "slow fever," "typhoid malaria," "malarial fever," "remittent fever," "gastric fever," "intestinal fever," "mountain fever," etc., and even many that are called simply "diarrhoea," "dysentery," etc., are actually mild or atypical cases of typhoid.

The cost of caring for persons suffering from the disease and of burying those who die from it in the United States is more than \$110,000,000 each year, the value of the time lost each year, by those sick from typhoid, placing it at its lowest figure is over \$50,000,000, and the value of their lives, mostly young and strong, just entering upon their productive period, is incalculable.

An estimate based on the most reliable statistics obtainable from each country in Europe and America for the last 100 years gives the number of deaths from this disease in these countries at more than 13,000,000, and this is probably an under estimate rather than an exaggeration.

With such proofs of the terrible destruction resulting from it one would think that a wide-awake, progressive people would be reaching out anxiously for a remedy for these conditions and making the most strenuous efforts to discover a method whereby this deplorable loss could be prevented. But we do not. We slip along easily in the same old way, dose our patients with the same old drugs or turn with hope to the new ones exploited by the commercial pharmacutists, bury the same old number, collect our fees when we can and accept it as one of the inscrutable dispensations of Providence with which we have nothing to do, and even when we have proven to us by indisputable evidence that the disease is preventible, we have not the courage and energy to stem the tide of popular ignorance and prejudice and educate our people up to the point of accepting it and demanding that the necessary measures for making it effective shall be put in force.

In regard to the best forms of treatment one is wise to speak very conservatively, for a most careful study of statistics known to be reliable shows that while the death rate varies very widely in different epidemics and at different periods of the same epidemic, it is surprisingly uniform, all other things being equal, no matter what plan of treatment is followed. It may be stated as an axiom that no case of

typhoid fever is ever cured, or its natural course shortened by medical treatment, and that, as a rule, the more simple the treatment, the better. Indeed it is a fact widely recognized that under the old castor oil and cold bath treatment, the simplest of them all, quite a large proportion of cases make a good and uneventful recovery, while there is no proof that the more elaborate and presumably scientific plans have ever brought about the cure of a single case, or the shortening of its course. The dietetic management of the case and the strict observance of proper hygienic and sanitary measures seems to be by far the more important factor in promoting the well being of the patient, and I would venture to assert that there is not a single physician here today who if he had typhoid fever and was obliged to decide between a good doctor and a good nurse, would not choose the unrse. I do not mean to say that no medical treatment should be given, because there are very few cases in which the organism cannot be aided in its efforts to maintain its natural action, to carry on its normal processes and to protect itself against the destructive action of the disease cannot be aided by judicious treatment given at the proper time. What I mean is that it is useless, foolish, I believe criminal, to inaugurate a course of treatment directed primarily against the disease itself. Treat the patient, and the conditions, resulting from and complicating the disease, not the disease itself.

But there should be no necessity of even discussing treatment for typhoid fever, for there should be no typhoid fever to treat. That it is absolutely preventible has been proved beyond a

shadow of doubt, and it does not speak well for our progressiveness, for our intelligence, for our civilization that it still remains almost as great a scourge as it ever was, though it is a well-known fact that not only can the transmission of the disease be avoided and its propagation largely prevented by observance of proper sanitary precautions, which are comparatively simple and easy of application and would be thoroughly effective if universally adopted, but that every person who is liable to contract the disease can without danger, without pain more than that of the prick of a needle, and with no more inconvenience in a large majority of cases than a slight febrile reaction lasting at most a few hours, become absolutely immune for a period ranging from two years to the remainder of his lifetime.

The sanitary measures for its prevention are chiefly directed toward the prevention of the contamination of food. The typhoid fever infection always enters the organism by way of the digestive system. It may be taken in food or drink, it may be obtained from a cup or other article placed in the mouth, or it may be inhaled, and later swallowed. The principal active agents in its transmission are flies which obtain it by resting upon or eating faecal matter. Other media are the hands of those who are themselves infected or who come in contact with an infected person, and become soiled with faeces or urine. Intermediate media of transmission are table and kitchen utensil, door knobs, tent flies, books, pencils, money, and other articles which have been handled by persons with infected fingers. Other means of transmission are by sewage

contaminated water, and from dust blown up by the wind, though it is rarely that the bacillus will survive such drying as would make this likely.

The sanitary measures used for the prevention of infection include the absolute destruction of every possible particle of faeces and urine passed by an infected person and the scrupulously thorough cleansing and disinfection of their persons, and their clothing, and of those of all who come in contact with them, and of all articles touched by them. Next in importance comes the extermination of flies, the most important and effective measure in this connection being the destruction of their larvæ by burning stable or other litter, building outside toilets so that flies cannot gain access to the contents of the vaults, and locating them where they cannot contaminate the water supply, preventing pollution of soil by faecal matter or urine, etc., etc.

If the proper sanitary measures could be carried out in detail there would be no necessity for any other means being used for its prevention, but they never will be, therefore the only way to guard against infection, which is a duty which every one owes to himself, to his family and to the community in which he lives, is to secure immunization by the use of the vaccine. This is a well-tried procedure. It has been thoroughly tested in thousands of cases during the last twenty years and has proven thoroughly efficient and thoroughly safe, so that there can be absolutely no valid objection to it and no reasonable excuse for refusing or neglecting to secure the protection which it gives.

A brief sketch of the development



of the procedure may not be out of place.

As early as 1882 a young biologist of Berlin made some experiments looking toward immunization, but no notice was taken of his work and it was forgotten.

Methodical investigations and experiments along this line were begun in 1890, most of them being based on Haffkine's work in cholera.

In 1898 its use was introduced among the British troops in India. As a result the death rate was very materially reduced though the case rate remained about the same.

In 1904, the British troops going to South Africa were inoculated in part. In the few organizations in which records were kept a marked difference shows between the death rate of those inoculated and those who were not and the case rate also was much lower among those who received the inoculation.

In November, 1904, the German government, after a most thorough series of investigations under the direction of Pfister and Kalle, authorized its use among the colonial troops under orders for Africa, South West. The records for the next four years show that while among those not inoculated 98.4 out of each thousand contracted typhoid, and 12.6 out of every thousand died, among those who were protected by three injections only 47.9 out of each thousand contracted the disease and but 2.2 died.

In 1905 English investigators discovered that the high temperature applied to the culture to destroy the bacilli seriously impaired the efficiency of the vaccine, and thereafter the amount of heat applied was decreased,

with the result that a very decided increase in the protective power of the vaccine was shown.

During the year 1906, among the British troops in India, the number of cases per thousand among those not vaccinated was 53.9, with 9.9 deaths, while among those who had been protected by the vaccine the number of cases per thousand was 17.3, with no deaths.

At the close of the Boer War, there being considerable divergence of opinion as to the value of the procedure, among English surgeons, the British War Office suspended its use pending investigation. A commission appointed for this purpose decided, after a most careful and thorough investigation, that the results had been markedly favorable, and the inoculations were resumed in the English army. Meanwhile, by experiments carried out at the Royal Army Medical College under Wright and McDonald, better methods of preparing and using the vaccine had been determined.

In 1908 Major Russel was sent by the U. S. government to England to study the methods used and the results gained there. On his return, after five months study and investigation a board composed of Prof. Victor Vaughan of the Univ. of Mich., Prof. Wm. T. Councilman of Harvard Univ., Prof. John H. Musser, of the Univ. of Pa., Prof. Alex. Lambert of Cornell Univ., Dr. Simon Flexner, of Rockefeller Inst. and Prof. Wm. S. Thayer of Johns Hopkins Univ. after thoroughly reviewing the history of the procedure, the theory on which it is based and the many details involved made a unanimous report of which the following is a part: "The board is convinced that

the practice of anti-typhoid vaccination is both useful and harmless. \* \* \* "It finds that the experience to date with anti-typhoid vaccination justifies it in recommending the introduction of the practice in the regular and volunteer armies in time of war."

In the latter part of 1908 the practice was first introduced in the U. S. army. In 1909 there were in the army 252 cases of typhoid with 18 deaths, not a single undoubted case occurring among the 12,000 men who had received the full three injections. One man who had received but a single injection, contracted a mild case, and there were two other cases in which a positive diagnosis was not made, but which might have been a mild form of the disease.

During the first half of 1911, the protection of vaccination was extended to a large part of the army, and during that year there was but one case of typhoid fever in a man who had received but one injection, and since that time the army of the United States has been free of the disease.

It was my privilege to assist in the work among the troops stationed at San Diego in 1911, where I had every opportunity given me for observing the results, and my observations then and since have convinced me that the procedure when properly carried out is absolutely harmless and absolutely effective.

The proofs above given are sufficient to convince the most skeptical of its absolute efficiency, and we will consider the question of danger from the operation itself, and the possibility of bad after effects, which seem to be a bugbear with many.

I have given myself or assisted in

giving, 7,921 injections of the vaccine. These were given to 2,907 persons, 2,341 of whom received three injections, 323 received two injections, 212 received one injection, 11 received four each, 7 received 5 each, 1 received 7 and 1 received 16. Of these 1151 were under daily observation for periods ranging from three weeks to eight weeks after the first injection was given, and 103 of these were under constant observation for periods ranging from eight weeks to over three years. In all these cases I have never seen a serious inflammation at the site of the injection, though one was reported to me as occurring in a man to whom I gave one injection and who immediately after became drunk and lay out all night.

3,288 injections in all were given to these persons. After 586 of these injections the highest temperature reached was less than  $100^{\circ}$ , in 2543 cases it reached a point between  $100^{\circ}$  and  $101^{\circ}$ , in 212 cases between  $101^{\circ}$  and  $102^{\circ}$ , and in 11 cases more than  $102^{\circ}$ . The rise continued for less than 6 hours in 3,016 cases, between 6 and 12 hours in 204 cases, between 12 and 24 hours in 61 cases and more than 24 hours in 23 cases. After 491 injections there was a sense of muscular soreness lasting in some cases for three or four days. After 367 there was complaint of a feeling of lassitude, lasting in some cases for two days. After 17 there was a sense of faintness and exhaustion. After 10 there was a feeling of general malaise for several days. After 11 there was nausea without vomiting and after 12 vomiting. 59 times the temperature became subnormal before the reaction and 217 times after the reaction. The heart

action was slightly accelerated immediately after the injection in a majority of the cases, and it was found that for several days after the injection in a large number of those vaccinated any very active exertion caused more than natural acceleration of the heart beat. In no case which has been under my observation or of which I have had knowledge have there been any remote ill effects which could be attributed to the action of the vaccine.

The conclusions which I have reached from my observations and study of the operation and its results are, that if the technique, which is simple, is properly carried out, there need be no fear of any bad results, either immediate or remote, but that the action of the vaccine on the muscular system is such that for several days after an injection is given the subject should not be allowed to take active exercise. There seems to be a general weakening of the muscular system, voluntary and involuntary, slight, but perceptible, which might result in injury from very active muscular exertion.

The injection should be given three times at intervals of ten days in order to be certain of securing perfect immunization,  $\frac{1}{2}$  cc. the first injection, 1 cc. each of those following. The most careful antiseptic precautions should be observed in the preparation of both patient and syringe. It is better to use a new needle for each injection, and in no case should a needle be used a second time without perfect disinfection, preferably by boiling. Col. Frick insists that the syringe shall be boiled before each injection, and his results have justified his care.

The subject should have on clean clothes, his arm should be scrubbed

with green soap and water, then wiped with alcohol and the site of the injection painted with iodine, and it is wise in most cases at least to cover the site with a small square of aseptic gauze, kept in place with a couple of strips of adhesive plaster. If these precautions are properly carried out you can be absolutely certain that you will have no bad after effects at the site of the injection, and if your patient will abstain from active exercise and from all forms of excess, eat moderately of plain food and keep his bowels open for two or three days after the injection, you can be absolutely certain that you will have no other bad effects, and after giving the three injections in this manner you can be absolutely certain that your patient is immune from typhoid fever, for a period ranging from two years to the remainder of his life.

In certain parts of this state, as in other parts of the country, the disease is endemic. Every time that a resident of one of these sections goes out into another section he takes the responsibility of becoming a menace to the health and the lives of the people in the community to which he goes, for he may be a carrier of the disease without ever having shown the physical signs of it. This no man has any right to do, therefore it is a duty which every member of these communities owes to his fellow man to make himself immune. Every man who has not been immunized by taking the vaccine, or by having had the disease is liable to contract it, and to not only suffer himself from its effects but to become a medium of transmission to others, therefore it is a duty which every man owes to himself and to his fellow man to promptly secure his own immuniza-



tion if he is not already immune.

And it is the duty of each member of the medical profession, who knows, or should know the importance to the community of securing such immunity to spread the information among the people of the community in which he lives and labors, to educate them to a realization of the importance of the matter and to insist that they shall perform their duty in regard to it.

If the profession had been as wide awake, as free from prejudice themselves and from a cowardly shrinking from opposing the prejudices of the people in their communities as they should have been, typhoid fever would have been a thing of the past, and these thousands of lives which are being sacrificed every year to ignorance and prejudice and indifference would be saved.

Are the members of the New Mexico Medical Society public spirited citizens and wide-awake, up-to-date members of the profession or are they ignorant, or prejudiced, or cowardly shirks? Their actions will furnish the proof.

#### DISCUSSION.

Dr. J. O. Walkup, Fort Bayard:—

I have been giving anti-typhoid vaccine since 1909. Until the Texas maneuvers in 1911, only those who volunteered were vaccinated: then it became obligatory for all officers, soldiers, and civilian employees to be vaccinated unless they could show documentary evidence of having had typhoid fever or the prophylactic vaccination. At present, the army requires each recruit to be vaccinated against typhoid as against smallpox. In the event of war, we will all, in all probability, be re-vaccinated at the beginning of camp

concentration unless the records show that we have been vaccinated within the past year or eighteen months. And we should be, as it is a simple procedure, absolutely harmless, very effective, and will promote the efficiency of the army by maintaining its health. The efficiency of the treatment is well shown by the Division Maneuver Camp at San Antonio, Texas, where there were 12,000 or 13,000 men in camp. There were but two cases of typhoid fever: one hospital corps man who had not completed his prophylaxis, and a civilian teamster who had not been vaccinated. There were no deaths. Typhoid was present in San Antonio; forty-nine cases were reported by the health officer during the time of the maneuver camp. Of these, nineteen died. The technique of giving the prophylaxis is simple. The arm is to be cleaned; paint an area about two inches square with tincture of iodine, and inject the vaccine into the subcutaneous tissue with a sterile syringe. One-half (0.5 c. c.) cubic centimeter is given for the first dose and one (1.0 c. c.) cubic centimeter for the second and third doses. The doses are given at ten day intervals. If necessity demands, the maximum protection may be conferred in two weeks time. It is best given about 4:00 p. m.; then the worst symptoms have subsided by morning. In over 3,000 doses, I have never seen a hypodermic abscess.

As physicians, we should advocate the vaccination of all healthy people who have not had typhoid, and in time, typhoid cases would be as rare as smallpox is now. In answer to the question of dosage for children, Young's rule is applicable.

## SUPPURATIVE NEPHRITIS.

Edwin B. Shaw, A. M., M. D.,

Las Vegas, New Mexico.

Read before the 32nd Annual Meeting of  
the New Mexico Medical Society, Albuquerque, N. M., October 3rd, 1913.

A case of general parenchymatous as well as pelvic suppuration of the kidney is sufficiently rare to merit a report because of the lessons taught in diagnosis and also in the proper management of the case.

The term "surgical kidney," was formerly used to cover any condition calling for surgical interference, such as pyelitis, hydronephrosis, tuberculosis, neoplasms, etc.

The diagnosis of suppurative nephritis is not always easy, in fact its differentiation from hydronephrosis, sarcoma or carcinoma is sometimes fraught with difficulty. A careful study of the history of the case, noting whether the kidney enlargement has been gradual or rather sudden ought to exclude hydronephrosis. In the suppurative type there are evidences of constitutional disturbance due to the septic condition. There will be present fever, possible chills and sweats, a coated tongue, loss of appetite, failure in strength and loss of weight, and pain and tenderness over the affected kidney. Pus is present in the urine, but this occurs also when the suppurative process is confined to the pelvis alone. In cancer of the kidney the enlargement comes on more slowly; there is less tenderness, little or no pain until late in the disease, generally a cachexia, and an absence of pus in the urine. True, an ante-operative diagnosis of suppurative kidney as among hydronephrosis, pyelitis and neo-

plasms, is of little importance as regards the course to be pursued, yet, it is of vast importance from a prognostic standpoint. Carcinoma or sarcoma of the kidney is singularly fatal.

In any given case where as grave a procedure as a nephrectomy is considered it ought to be approached with due consideration for the welfare of the patient.

Assurance should be obtained as to the condition of the other kidney. Will it be capable of carrying on the work of both kidneys? When possible, the urine should be segregated and examined. When this is not possible for want of apparatus, the abdomen should be opened and the supposedly healthy kidney examined. It must not be forgotten that one kidney may be absent in apparently healthy subjects, more frequently the left. A horse-shoe kidney is sometimes met with, though, fortunately, with great rarity.

If the posterior route be chosen, it would probably be safer to make an incision over the other kidney posteriorly to insure its presence and to obtain a knowledge of its condition. In all cases where the size of the tumor renders difficult or well nigh impossible its removal posteriorly, the abdominal route should be chosen. Personally, I do not believe the danger is much enhanced in the hands of men doing abdominal work. With proper protection of the cavity with sponges, drainage provided through the flank,—which can so readily be accomplished, and a proper disposition of the ureter, infection of the cavity ought to be avoided.

*CASE:*—Mrs. G., aet, 36, Spanish-American, married at the age of sixteen years, has borne eight children, and has had four mis-carriages. As a

girl her health was excellent. Since marriage she has had rather poor health, nothing definite, tiring easily, largely due, no doubt, to frequent child-bearing. Seven years ago, she had a most severe attack of puerperal fever, so severe that her life was in great jeopardy, being confined to bed for seven weeks.

*Present Illness:*—About a year ago she had an attack of pain in the region of her right kidney, followed by tenderness and soreness. Following the first attack there have been, at more or less irregular intervals, paroxysms of pain of such severity that she felt that death was impending. For a month preceding my first and only visit at her home, June 20th, 1913, there were frequent and severe attacks of pain, rapid failure in strength, loss of appetite and fever.

About 12 M., June 20th, 1913, Dr. W. M. Woodling requested me to see the case in consultation. The patient was much emaciated, bore an anxious countenance indicative of suffering, and on examination a large and sensitive tumor was found on the right side extending from the liver to the crest of the ilium and well to the front. The patient's temperature was  $101^{\circ}$ , and pulse very slow and weak, being in the sixties. The Doctor had advised an operation, being, in his judgement, the only chance for her life. We readily gained consent from her friends to have her removed to the hospital, which was done that afternoon.

The following day she was prepared for operation, by careful dieting and judicious cleansing of the bowels. In this connection, I might add, that it has long been my belief, that harsh catharsis should not be done in a case debilitated and weakened by sepsis,

preceding any operative procedure likely to produce shock. The day preceding operation, the patient passed but one-half ounce of urine, which was loaded with pus, and before going to the operating room, catheterization showed an absence of urine in the bladder. This gave an unfavorable outlook to the case, as it was feared that the left kidney was also diseased.

I shall not go into the details of the operation, mentioning only such things as seem to be of interest.

The abdominal incision was made through the linea-semi-lunaris. The left kidney was examined and seemed normal. The intestines being almost flat were easily kept to one side, when the posterior peritoneum was incised, exposing the tumor. The tumor was found to be extensively adherent to surrounding structures, but was gently detached; care being taken not to make too great traction on the veins. The ureter was so greatly enlarged that it was puzzling for a time to determine its nature. The ureter, artery and veins were clamped, cut and the kidney removed. To guard against hemorrhage the artery and veins were tied separately with chromicised cat-gut, and as a further precaution the mass was transfixed.

The Anaesthetist reported that the case was not doing well, so the ureter was not dealt with ideally. An opening was made in the flank, a large drainage tube drawn through, and the abdominal wound closed quickly by through-and-through silk worm gut sutures. Subcutaneous saline infusion was begun on first indication of failure, so that when patient was returned to bed her condition was satisfactory.

On examining the kidney, its substance was found to be almost entirely



destroyed, being practically a large pus sac. In Mumford's Surgery, page 376, is a picture of a surgical kidney, (Warren Museum, Harvard), which presents a striking resemblance to it. In the pelvis was found a stone weighing ten and 9-10 grammes. The lightness of the stone indicates that it is probably phosphatic.

Following the operation there was slight vomiting, but otherwise she was quiet and comfortable. Six ounces of normal saline solution was ordered given slowly per rectum every four hours. This was done with a view of stimulating the kidney to functional activity.

June 23rd—Patient bright, temperature 99.8-10, pulse 104. During the twenty-four hours, from June 23rd to June 24th, the quantity of urine passed was 21½ ounces. June 24th, passed ten ounces, although no doubt, more was passed with the bowel movements which were watery as a result of the saturated solution of magnesia having been given.

June 25th—18 ounces urine; three bowel movements.

June 26th—20½ ounces of urine. Subsequently the quantity gradually increased. Temperature ranged the first week after operation from 98 degrees to 100 degrees.

Stitches removed on the 8th day, wound perfectly healed; drainage tube removed July 1st, and the patient left the hospital July 7th, 1913.

It is pleasing to report at this writing that the woman seems in perfect health, performing all her household duties easily. She is free from all pain and discomfort, and gives evidence of being a happy and grateful patient.

## OPERATIVE TREATMENT OF UTERINE RETRO-DIS- PLACEMENTS.

By C. M. Yater, M. D., Roswell, N. M.

Read by title before the 32nd Annual Meeting of the New Mexico Medical Society, Albuquerque, N. M., October 3rd, 1913.

The procedure indicated by the title of this paper only marks one of the many steps forward in the practice of surgery and gynecology that have been taken in the recent past. But few years would have to be added to the lives of most of us to take us back beyond the period where it was thought to be absolutely fatal to open the abdominal cavity.

The old manner of treating uterine displacements by the use of tampons, pessaries, etc., has always been disappointing, and indeed, much harm has been done by the injudicious use of pessaries and much valuable time has been lost with these doubtful procedures, still there is enough merit in them to warrant us in giving them a fair trial in suitable, recent cases; however, the fact remains that the radical operative treatment is the one for sure and permanent results. The operative measures for the permanent correction of posterior uterine displacements may be conveniently grouped under three heads, viz: First, measures having for the object the cure or abatement of inflammatory conditions of the uterus and the bringing of the pelvic floor up to as near as possible the normal condition. Second, measures for abating any pelvic inflammation that may be present; and, Third, measures for bringing the uterus into its normal, or

approximately normal position in the pelvis and keeping it there. The first and second measures do not come within the scope of this paper. Only the methods, or some of them, for bringing the retro-displaced uterus as near as possible into its natural position and keeping it there will be considered.

There are a great many operations suggested having this end in view, each having their meritorious features and ardent advocates. It would be inadvisable at this time to go into detail of all these different operations, therefore I shall only notice briefly a few of the leading operations and try to point out the advantages and disadvantages of each.

In these procedures for the surgical replacement of the displaced uterus there are three routes by which we can approach the uterus: first, through the inguinal canal; second, through the vagina; and third, through the median abdominal incision. As a representative of the first, that through the inguinal canal, is the well known and extensively advertised Alexander operation. This operation has the advantage of being entirely extra-peritoneal and allowing the use of the strong proximal portion of the round ligament in supporting the uterus; its disadvantages are that it does not permit of any exploration of the pelvic cavity and the breaking up of any adhesions that may be present or the detection and correction of any abnormality that might be in the way of a thorough and successful operation, uncertainty as to the uterus being satisfactorily forward and using the lateral instead of the direct forward pull on the uterus, hence permitting a return of the original displacement under favorable

circumstances for a return. Another operation that is done through the inguinal canal is inguinal celiotomy. This is practically the same as the Alexander only it admits of a partial exploration of the pelvic cavity, that cavity being opened. This operation has all the disadvantages of the median incision without any of the advantages.

We come now to consider the vaginal route. These operations through the vagina have the advantage that they can be easily combined with any work that may be necessary to be done on the vagina or perineum in order to bring them up to the normal standard, and that there is less danger of shock and less danger of sepsis from the fact that the peritoneum is handled less than in operations by the abdominal route. The disadvantages are that they are unhandy to perform, do not provide an adequate elevation of the fundus nor the direct forward pull which is so necessary to prevent the uterus returning to the former displaced condition, nor can pathological conditions in the pelvis be so well dealt with as through the median incision.

This brings us to the third route by which we can approach the uterus, and the one that gives us the best opportunity for doing satisfactory, thorough work, through the median abdominal incision. There are many of these operations. In all the abdomen is opened in the median line just above the pubis. The various procedures after the abdomen is opened are what distinguish one operation from another.

Ventro-fixation is a splendid operation in a woman who has passed the child-bearing age, but should never, under any circumstances, be resorted to in one who is likely to ever become

pregnant, because the uterus will be so firmly and immovably attached to the abdominal wall that it cannot develop along with the pregnancy, and abortion would be the most favorable thing that could happen. Ventral suspension is by far the more advisable operation during the child-bearing period or when there is a possibility of pregnancy occurring in the future, still, the future position of the uterus is not by any means so secure, as the bond of union between the uterus and peritoneum will gradually stretch until ultimately the uterus will return to the original displacement; beside we have this free band in the abdominal cavity around which intestines may twist and cause very serious consequences. Next come the different methods of shortening the round ligaments inside the abdominal cavity by folding them upon themselves and suturing, all of which are on the same principal as the Alexander, only, the weak distal end of the ligament is used in the former, whereas in the latter the strong, proximal portion is utilized. There is an operation along this line that consists of drawing the round ligament through a window made in the posterior surface of the broad ligament and suturing them together behind the uterus. At a glance this would seem to be an ideal operation, but not so, to my mind when scrutinized closely, because you are depending on the weak distal end of the ligaments with a lateral pull for your support of the uterus. Sooner or later you will more than likely have a return of the displacement. I am aware that there are some very eminent men now testing the efficiency of this method and so far are favorably impressed with it, though it is likely too

soon for them to express any decided opinion as to its ultimate merits.

There are four other median operations which I shall notice briefly, which consist in transplanting the round ligaments into the abdominal wall. In these, that portion of the round ligament which is normally inside the abdominal cavity is drawn out into the musculo-aponeurotic layer of the abdominal wall and sutured there. In these four operations the shortened round ligament leaves the abdominal cavity at different points. First, out through the aponeurotic wall through the internal inguinal ring thence on through the musculo-aponeurotic wall of the abdomen to the median incision. A splendid operation but for the fact that you have the lateral pull on the uterus and should there be much backward tendency the displacement will be very likely to return. Second, we notice the Gilliam operation, where the round ligament is made to leave the abdominal cavity in a loop directly through the rectus muscle. This is also a splendid operation but for the fact it leaves two free bands in the peritoneal cavity which may cause trouble in the way of intestinal obstruction. Third, we have the Ferguson modification of the Gilliam operation, which is indeed a very excellent operation and meets the indications admirably, and one which, under certain circumstances and conditions cannot be surpassed. This is essentially the same as the Gilliam operation only, the distal portion of the round ligament is sutured to the abdominal peritoneum thus obliterating the two free bands left by the latter operation by closing the opening between the distal end of the round ligament and the abdominal wall, through



which a coil of intestine might slip and become strangulated. The results of this operation are all that could be desired. The strong proximal portion of the ligament is utilized with a direct forward pull. This operation can be made use of successfully even when the round ligaments are bound down firmly by the products of inflammation, and leave no free band in the abdominal cavity. Still, there is one thing against it; the operative manipulations are extremely complicated on account of the difficulty encountered in suturing the distal portion of the ligament to the abdominal peritoneum. In spite of this single disadvantage, when the round ligaments are bound down by the products of inflammation and are not freely movable, this is the most practical operation to do and the only one that will meet the indications.

We now come to consider the last of the four; Crosson's modification of the Gilliam operation. This operation is not applicable where we find fixation of the round ligament or where it is very seriously attenuated, but in ordinary cases, where the round ligament is loose and freely movable, this is the choice of all operations and the only one of which I have any knowledge with which no fault can be found.

As this is the operation of my choice in suitable cases and the one that is most usually applicable and easy of execution, I shall, at the risk of being thought egotistical, give a brief outline of the technique, seeing it is not found in many text-books.

The abdomen being opened low down toward the pubis in the median line by a three inch incision, the pelvic cavity is first explored to ascertain its condition as to pathological changes,

adhesions between the uterus and any neighboring structures severed, the round ligaments ascertained to be freely movable, appendix examined and dealt with as indicated, etc. All this accomplished the retractors are placed and the round ligament on one side grasped in the bite of an ordinary tenaculum forceps at a point about one and a half inches from the uterus. In like manner the other round ligament is grasped with another forceps. The retractors may now be removed and the point of the puncturing tenaculum forceps inserted just under the upper sheath of the rectus muscle in one side of the abdominal incision at a point one inch above the pubis to a distance of one inch when the point is directed downward and made to pierce the rectus muscle and its posterior sheath down to but not through the peritoneum. Now, with one finger in the abdominal cavity as a guide, the puncturing forceps is passed outward between the peritoneum and the aponeurosis to a point about one inch from the internal inguinal ring at which point it is made to pierce the peritoneum and enter the abdominal cavity. The handle of the forceps is now raised and the free point, guided by the finger in the abdominal cavity, or by sight, is directed toward the point where the round ligament has been caught in the grasp of the tenaculum. The blades are now opened and the round ligament seized with the puncturing forceps and the ordinary tenaculum released. The puncturing forceps are now withdrawn bringing with them the loop of the round ligament into the abdominal incision where it is again seized with the ordinary tenaculum forceps and held. The same procedure is now gone

through with on the other side when a loop of each round ligament is held in the abdominal incision by two tenacula forceps. Should it be found that the round ligament, together with its overlying peritoneum, is too large a bundle to follow the puncturing forceps through the abdominal tissues, the peritoneum may be snipped at the point where the round ligament is to be grasped and the ligament alone caught in the grasp of the puncturing forceps and withdrawn into the abdominal incision, taking care that the proximal end is tense enough to bring the uterus well forward and the distal end sufficient to effectually close the opening between the ligament and the abdominal wall. By paying especial attention to the distal end the point where it emerges from the abdominal cavity may be considerably more than one inch and still effectually close this opening. When the distal end of the ligament is drawn taut the peritoneum is puckered up so as to completely close this opening and adhesions forming between the ligament and abdominal wall forever keep it closed. This puckering of the peritoneum brings the proximal end of the ligament approximately to the point where the puncturing forceps made its exit through the aponeurosis of the rectal muscle, and thus affords a pull on the uterus nearly directly forward, the same as in the Gilliam operation. If the loops of the ligaments are long enough they may be firmly stitched to each other across the abdominal incision and also to the anterior layer of the rectus sheath with chromic gut, but if this would make them too tense they may simply be stitched to the rectus sheath on their respective sides. The abdomen

is now closed in the usual manner without drainage. The patient should be kept in bed ten or twelve days on a convalescent diet. Should there be any operative procedure indicated in order to bring the pelvic floor up to the normal standard, it should precede the opening of the abdomen and may be done under the same anesthetic.

I have been brief on many important points in this paper, trusting to the discussion to bring out the best there is in the subject.

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### THROMBOSIS AND EMBOLISM FOLLOWING ABDOMINAL OPERATIONS AND CHILDBIRTH.

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By Dr. L. G. Rice, Albuquerque, N. M.

Read before the Bernalillo County Medical Society, Dec. 17th, 1913.

Mr. President and members of the Bernalillo County Medical Society:—

The subject assigned to me for this evening was thrombosis and embolism but as this entire subject covers so much ground, and for the want of time, I have limited my paper to thrombosis and embolism following abdominal operations and childbirth. However, I do not intend to fully cover this subject, but will endeavor to bring out some practical points for your consideration and I hope that in your discussion you will not limit yourselves entirely to this paper but that you will take up the entire subject of thrombosis and embolism, for I believe we learn far more from a general discussion than the paper itself.

These cases of thrombosis following operations or delivery may be divided into two groups which are clinically distinct.

First; the cases, usually puerperal, caused by acute infection, in which the pelvic veins are involved.

Second; the later developing, and milder cases of thrombosis, more frequently post-operative, in which the femoral or saphenous vein is most often affected.

The infectious origin of the cases in the first group is unquestioned and the interest in them at the present time is focused on the advisability of radical operative treatment. In the second class of cases the etiology is still in dispute and the prophylactic, rather than the curative, treatment should receive our greatest attention. It is also well to remember that phlebitis without thrombosis cannot cause swelling. Throughout the literature the terms thrombosis, phlebitis and thrombo-phlebitis are used synonymously to designate a certain well recognized clinical entity.

Post-operative or puerperal thrombosis may affect different veins, producing three types:

(a) When the involvement is of the pelvic veins alone and there is no gross infection, few symptoms are manifest. In the mild form it is very common and may exist in the apparently normal pelvis or in the diseased pelvis before operation. A somewhat more severe thrombosis of the pelvic veins may be suspected, but rarely proven, in those cases where the convalescence is not quite smooth, being marred by slight fever, accelerated pulse, fleeting pains in the groins, meteorism, etc. It is in these cases of occult pelvic thrombosis that sudden pulmonary embolism occurs and they are of interest chiefly for this reason.

(b) Of the two types which give rise to the classical symptoms thrombosis of the deep veins of the leg is more frequent. Embolism may occur, as has frequently been the case, from massage, but with care the danger is not great. It is from the developing thrombus that emboli come, rather than from the mature thrombus which has formed sufficiently to occlude the veins and cause symptoms.

(c) In the thrombosis of the saphenous veins, with redness of the skin and palpable vessels, the pain, swelling and cedema are less severe than when the deep veins are affected. Such thrombi are never the source of emboli.

*Frequency.* Among ninety-six thousand obstetrical cases there were three hundred, eighty-one instances of femoral thrombosis, a proportion of one case in each two hundred and fifty. In this same series of ninety-six thousand cases there were forty-four fatal pulmonary emboli, it having occurred once in each twenty-five hundred cases. Thrombosis is somewhat more frequent after gynecological operations. The statistics show one case in each eighty-seven. If the laparotomies alone are considered, the percentage is slightly over two percent. These statistics are taken from unmistakable cases. Those cases where thrombosis is suspected by your slow convalescence, slight fever, accelerated pulse, fleeting pains, meteorism, etc., have not been included.

*Etiology.* Few subjects in pathology have received more attention than has the mode of origin of thrombi. The etiology, therefore, of puerperal and post-operative is somewhat obscure and from the nature of the circumstances it would seem to be a very



difficult problem to clarify for these reasons:

Firstly; because post-mortem studies are infrequent, being possible only in the comparatively small number of fatal cases of embolism and in the grossly infected cases, and

Secondly; because the conditions are difficult to imitate in experimental pathology but the factors concerned should be studied and known because practical prophylaxis depends upon our conception of the causation.

The factors, as understood at the present time, are of two kinds: first, mechanical; second, biochemical.

Of the mechanical causes the most important are injury to the vessel walls and slowing of the blood stream. Of the biochemical causes there are three, —certain poisons, bacteria and the products of bacteria. Many authorities believe that infection is always necessary, others believe it is more mechanical in origin, but I think we can have thrombosis without infection, but oft-times there is a low grade of infection present with the mechanical cause, but if the condition of the blood is good it will be cared for and there will be no pus formation. Most of these arguments can be successfully answered. While it is true, the majority of instances follow clean cases, it is equally true that a very large proportion come in cases where there has been some infection, such as the interval appendix operation, gall stone operation or after operations during which some organ or foci has been opened into, or a pedicle of devitalized tissue is left in, or caused by, constricting ligatures. Speaking from the standpoint of bacteriology sterility is an absolute term; surgically speaking it is but relative

and few would contend that appendectomy or hysterectomy can be made aseptic in the bacteriological sense of the term. There is no such thing as a sterile wound or a sterile pedicle.

The fact that thrombi seldom suppurate argues not against infection, but rather against the introduction of a sufficient number of bacteria to overcome the bacteriocidal effect of the blood. Moreover, it may be the toxin of the bacteria which causes the trouble. This is none the less infection. About nine-tenths of thrombi, clinically speaking, are sterile. It is claimed that many cases run an afebrile course but as yet I have never seen a case and I doubt very much whether such a condition is possible if the case was closely watched and the temperature carefully recorded.

It may be true that the cases of thrombosis and embolism are as frequent today as they were many years ago in surgery but it must be remembered that thrombosis is, for the most part, a complication of severe operations and that it is a late complication. In former days many of the operations which are now followed by thrombosis were followed by death of the patient before there was time for thrombosis to develop. The fact that the complication is more frequent in the left leg is, I think, a strong argument in favor of the mechanical cause, where there is a natural slowing of the stream in the femoral and saphenous veins caused by anatomical peculiarities. Undoubtedly there is immunity in childhood and in early life infectious processes are common and thrombosis is rare. Some predisposing factor present in later life must be sought in explanation and the most obvious is

the condition of the vessel walls found after middle life. It has been proven that this complication is more frequent after abdominal than after vaginal operations because there is more injury done to the veins in the abdominal route, especially the deep epigastric veins.

It would seem, therefore, to be sufficient evidence of a practical nature to warrant the assumption that injury to the endothelial lining of the veins is the principal contributing cause.

We all know that slowing of the blood stream alone is not sufficient to cause thrombosis, for we know that the blood in a segment vein, carefully ligated in two places, remains fluid. Moreover, thrombosis is rare in heart disease, uncomplicated by infection; on the contrary, it is common in typhoid fever when the heart is weak and the circulation is poor. It is also more frequent in post-operative patients when the heart is weak from anæmia. Bandaging a limb slows the circulation but does not cause thrombosis, so it is readily seen that neither slowing of the stream nor injury to the vessel walls are sufficient causes alone, and when we consider all of the facts, it would seem that there must be some other cause acting with them. The most acceptable theory, and the one accepted by men who should know, in addition to injury and slowing of the stream, is that of a conglutination of the platelets and red corpuscles. Of all the causes of conglutination, hæmolysis is the most important. The principle hæmolytic agents are micro-organisms and many of those which are the least virulent as regards sepsis are the most potent as regards hæmolysis.

It has been proven that the colon

bacillus has a greater power than the streptococcus to produce thrombosis in the presence of the slowing of the blood stream and this bacillus is the principal cause in thrombosis in the neighborhood of the intestines, and that the colon bacillus, as well as several other organisms are known to have a marked hæmolytic action on the blood, therefore it is readily seen if you have a sluggish blood stream and injury to the vessels by rough handling and a few of these hæmolytic organisms liberated by opening into the gall bladder, by amputating the appendix, etc., how you would naturally get thrombosis. This would not be infection as we ordinarily understand the term, but would be partially caused by bacteria so feebly virulent or in such small numbers as to produce no gross infection.

*Premonitory Symptoms.* While there are no absolutely reliable premonitory symptoms of impending thrombosis, the possibility of its development should be kept in mind whenever a patient has a slight temperature for several days, also when the pulse rate is out of proportion to the temperature and especially when a thorough examination reveals no other cause for this condition. It has also been shown that a very large proportion of the pleuritic pains coming on after confinement or operation are embolic in origin and point to a developing thrombus in some other locality.

*Prophylaxis.* If we accept the theory that thrombosis is due to the hæmolytic action of the bacteria acting in conjunction with the two predisposing factors, namely, injury to the vessel walls and slowing of the blood stream, the prophylaxis must be begun

before the operation, kept in mind during the operation, and carried out after the operation.

Before the operation or confinement, a careful examination of the veins of the legs, of the groins, and of the abdomen, should be made, and if found to be varicose there is need of particular care. The abdominal incision should be planned to miss the superficial veins, for in doing so the deeper vessels will usually not be encountered. The field of the operation should be thoroughly cleansed by one of the present day methods, the operator and his assistants should by all means wear rubber gloves.

The points to be kept in mind during the operation, in addition to a technique as near theoretically perfect as possible, are the position of the patient on the table, avoiding a high Trendelenburg posture in fleshy patients and flexure of the knees to maintain the position. Also to be avoided are undue injury by large and deep retractors. All veins should be ligated before an organ is opened or removed and no vessels should be tied enmasse, as is often done. Care should be taken to prevent traction on ligaments containing vessels and to prevent undue cooling of the abdominal cavity. Bandages which are too tight or which cause constriction are to be avoided. The field of the operation should be kept as dry as possible and the hands should not come in contact with the skin after the operation is begun.

After the operation, the principle aim in the prophylaxis is to prevent slowing of the blood stream. This is accomplished by careful supervision of the heart action, by early, active and passive exercise of the limbs, and espe-

cially the legs, and by getting the patient out of bed early. During the past five years there has been much discussion as to the value in this respect of early rising as first advocated by Ries and Boldt. At the university clinic in Vienna early rising has reduced the thrombosis morbidity from two per cent to one-half of one per cent. Mayo's percentage was reduced from two to a quarter of one per cent and in most all institutions, where accurate statistics are kept, they coincide very similarly with the above figures.

*Treatment.* There has been little new in the treatment of thrombosis. Elevation of the affected leg, rest, hot or cold applications comprise the conservative treatment. Some apply a light bandage, after which the patient is allowed to walk about, others use gentle massage instead of the exercise.

*Prognosis.* About sixty-five per cent never fully recover, and if complete recovery is to follow it will come before the end of the first year, by which time the collateral circulation is as completely established as it ever will be.

A great deal of this paper was taken from a recent article by Dr. B. R. Schenck, of Detroit, Mich.

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## Abstracts

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### New and Non-Official Remedies.

Radium and Radium Salts. -Radium is used in medicine in the form of chloride, bromide and carbonate. The therapeutic value of radium salts depends on the emanations which are given off from the radium. Radium emanation consists of alpha-rays, beta-rays and gamma-rays, the lat-



ter being similar to x-rays and therapeutically the most useful. The quantity and concentration of radium emanations are expressed in terms of "curie" and Mache units. A "curie" is the amount of emanation in equilibrium with 1 Gm. of radium and a microcurie is one millionth of a "curie." A microcurie is equivalent to about 2,500 Mache units. It has been claimed that radium emanation is of value in all forms of non-suppurative, acute, subacute and chronic arthritis, acute and chronic gout, neuralgia, sciatica, lumbago and in tabes dorsalis for the relief of lancinating pains. Its chief value is in the relief of pain. Surgically marked results are obtained in the removal of epitheliomata, birthmarks and scars. Radium may be administered in baths, by subcutaneous injection in the neighborhood of an involved joint (0.25 to 0.5 microcurie in 1 or 2 cc. distilled water), by local application as compresses (5-10 microcuries), by mouth as a drink cure (in increasing doses of from 1-10 to 10 microcuries three or more times a day), by inhalation, the patient for two hours daily remaining in the emanatorium, which contains 0.0025 to 0.25 (average 0.1) microcurie per liter of air.

**Radium Chloride.**—Radium chloride is supplied in the form of a mixture of radium chloride and barium chloride, and is sold on the basis of its radium content. Radium Chloride—Standard Chemical Co., Radium Chemical, Pittsburg, Pa.

**Radium Sulphate.**—Radium sulphate is supplied in the form of a mixture of radium sulphate and barium sulphate and is sold on the basis of its radium content. Radium Sulphate—Standard Chemical Co., Radium Chemical Co., Pittsburg, Pa. (Jour. A. M. A., Jan. 3, 1914, p. 41.)

**Sodium Acid Phosphate.**—Sodium Acid phosphate (Sodii Phosphas Acidi),  $\text{NaH}_2\text{-}$

$\text{PO}_4$ ,  $\text{H}_2\text{O}$ , is the monosodium dihydrogen salt of orthophosphoric acid, containing not less than 82 per cent of anhydrous sodium acid phosphate. Sodium acid phosphate is administered to render the urine acid or to increase its acidity. It is used for this purpose to assist the action of hexamethylenamin which is effective only in acid urine. It should be given so that it has left the stomach before the hexamethylenamin is given. Non-proprietary preparations: Sodium Acid Phosphate, M. C. W., The Mallinckrodt Chemical Works, St. Louis, Mo.; Sodium Phosphate, Monobasic, P. W. R., The Powers-Weightman-Rosengarten Co., Philadelphia, Pa. (Jour. A. M. A., Jan. 10, 1914, p. 127).

**Slee's Refined and Concentrated Tetanus Antitoxin (Globulin Solution).**—For description of Tetanus Antitoxin see N. N. R. 1913, p. 218. Abbott Alkaloidal Co., Chicago.

**Slee's Normal Horse Serum.**—For description of Normal Horse Serum see N. N. R. 1913, p. 236. Abbott Alkaloidal Co., Chicago (Jour. A. M. A., Jan. 10, 1914, p. 128).

**Ampoules Emetine Hydrochloride, P. D. & Co.**—Each ampoule contains emetine hydrochloride 0.02 Gm. Parke, Davis & Co., Detroit, Mich. (Jour. A. M. A., Jan. 10, 1914, p. 128).

**Phenolsulphonephthalsin.**—A product differing chemically from phenolphthalein in that a carbonyl group of the latter has been replaced by a sulphone group. Phenolsulphonephthalein is used to determine the functional activity of the kidneys. It is injected intramuscularly or intravenously and its rate of excretion determined colorimetrically. Phenolsulphonephthalein is a red powder which yields a deep red solution with water or alcohol containing an alkali.

Phenolsulphonephthalein, H. W. & Co.—Made by a special process and said to be exceptionally pure. Hynson, Westcott & Co., Baltimore, Md.

Phenolsulphonephthalein Ampoules. — Each contains a solution of 0.006 Gm. phenolsulphonephthalein, in the form of the monosodium salt. Hynson, Westcott & Co., Baltimore, Md.

Sterile Ampoules of Mercury Salicylate. —Each contains 0.06 Gm. of mercury salicylate N. N. R., suspended in a vegetable fat. Hynson, Westcott & Co., Baltimore, Md.

Salvarsan-Ehrlich, Suspension in Ampoules.—Each contains 0.1 Gm. of salvarsan, suspended in a vegetable fat. Hynson, Westcott & Co., Baltimore, Md.

Neosalvarsan-Ehrlich, Suspension in Ampoules.—Each contains 0.15 Gm. neosalvarsan suspended in a vegetable fat. Hynson, Westcott & Co., Baltimore, Md. (Jour. A. M. A., Jan. 24, 1914, p. 297 and 298).

Elarson.—Elarson is the strontium salt of chlorarsenobehenolic acid, containing about 13 per cent of arsenic and about 6 per cent of chlorin. It has the action of arsenic, but the arsenic being in lipid-like combination is said to be better utilized and to exert its therapeutic effect in smaller doses than other organic arsenical preparations. Also, it is said to produce relatively little gastric irritation. It is sold only in the form of Elarson tablets. The Bayer Co., New York (Jour. A. M. A., Jan. 31, 1914, p. 379).

Since publication of New and Nonofficial Remedies, 1913, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies":

Digipoten.—Digipoten consists of the digitalis glucosides in soluble form, diluted with milk sugar to give it strength equal to that of digitalis of good quality. Digipoten is adjusted by the frog and guinea pig methods to have a strength of 1,400 heart tonic units and by chemical assay to contain from 0.3 to 0.4 per cent digitoxin. The action, uses and dosage of digipoten are the same as those of digitalis. It is sold in the form of a powder, which is soluble in water, and as Digipoten Tablets, each containing 0.03 Gm. The Abbott Alkaloidal Co., Chicago, Ill. (Jour. A. M. A., Dec. 6, 1913, p. 2069).

Tannigen Tablets.—Each tablet contains tannigen (see N. N. R., 1913) 0.5 Gm. Th.-Bayer Co., New York City (Jour. Dec. 6, 1913, p. 2069).

Bordet-Gengou Bacillus Vaccine for Whooping-Cough Prophylaxis. — Greeley Laboratories, Inc., New York.

Bordet-Gengou Bacillus Vaccine for Whooping-Cough Therapy.—This vaccine is believed to be of service in the prevention and also in the treatment of whooping-cough. Greeley Laboratories, Inc., New York City (Jour. A. M. A., Dec. 13, 1913, p. 2158).

Culture of Bacillus Bulgaricus, Fairchild.—A liquid culture of the Bacillus Bulgaricus. The culture is sold in packages containing 6 and 30 vials, respectively. The culture is used internally in the treatment of intestinal putrefactive diseases and as an application to body cavities in the treatment of suppurative conditions. Fairchild Bros. and Foster, New York (Jour. A. M. A., Dec. 13, 1913, p. 2158).

Slee's Antimeningitis Serum.—For description of Antimeningococcus Serum see N. N. R., 1913, p. 215. The Abbott Alkaloidal Co., Chicago.

Slee's Antistreptococcic Serum.—For

description of Antistreptococcus Serum see N. N. R., 1913, p. 216. The Abbott Alkaloidal Co., Chicago (Jour. A. M. A., Dec. 20, 1913, p. 2242).

### Propaganda for Reform.

**Lactic Acid Ferment Preparations in N. N. R.**—Assertions that the lactic acid ferment preparations on the market are worthless caused the Council on Pharmacy and Chemistry to examine those admitted to N. N. R. While past examinations showed this class of preparations to be most unreliable, the present market supply was found to be satisfactory. The products examined were Fairchild Culture of *Bacillus Bulgaricus*, lactic bacillary tablets, Fairchild, lactampoules, Fairchild, bacillary milk, Fairchild, bulgara tablets, H. W. Co., massolin, Schieffelin (Jour. A. M. A., Dec. 6, 1913, p. 2084).

**Sanatogen.**—The fundamental objection to Sanatogen is not its outrageously high price, but the attempt to ascribe to a mixture of casein and glycerophosphate powers not possessed by these ingredients. The claim that Sanatogen is a "nerve food" is an absurdity as is any claim that the casein in Sanatogen has a greater food value than the casein in ordinary milk. Physicians who have given fulsome puffs for Sanatogen are invited to study the claims which are made for it,—the following being one: "...it revivifies the nerves, promoting sleep and helping digestion..." (Jour. A. M. A., Dec. 6, 1913, p. 2085).

**The Value of Echinacea.**—While most extravagant claims are made for this drug, the Council on Pharmacy and Chemistry concludes that, on the basis of the available evidence, echinacea is not entitled to be described in New and Nonofficial Remedies as a drug of probable value (Jour. A. M. A., Dec. 6, 1913, p. 2088).

**Texas Guinan.**—The Texas Guinan

**World-Famed Treatment for Corpulency** (Texas Guinan Co., Los Angeles, Cal.) appears to be the latest venture of W. C. Cunningham, of Marjorie Hamilton's Obesity Cure fame. It is exploited by follow-up letters giving the experiences of Texas Guinan, an actress, and offering the preparation at a sliding scale of prices, ranging from twenty dollars down to three dollars. From an analysis made in the A. M. A. Chemical laboratory it appears that an essentially similar preparation may be obtained by mixing one pound of powdered alum with ten ounces of alcohol and enough water to make one quart. A second specimen which was examined in the Association's Laboratory contained no alum or alcohol and appeared to be a tragacanth preparation of the "vanishing lotion" type (Jour. A. M. A., Dec. 13, 1913, p. 2173).

**Colloidal Palladium.**—A preparation of colloidal palladium, under the proprietary name Lepfynol, is proposed as a means of causing the absorption of adipose tissue. The preparation appears one of the many thousand proprietaries produced abroad in the past year and put on the market after meagre experimental work (Jour. A. M. A., Dec. 13, 1913, p. 2179).

**Dowd's Phosphatometer.**—According to the inventor this is a device "for taking the phosphatic index or pulse of the nervous system." Its originator, Dr. J. Henry Dowd, M. D. Buffalo, N. Y., writes enthusiastically of his instrument and of "Comp. Phosphorus Tonic." The phosphatometer is a scientific absurdity which pretends to determine the amount of phosphate in the urine and thus to measure "nerve metabolism." (Jour. A. M. A., Dec. 20, 1913, p. 2258).

**Another "Cancer Cure."**—Denver newspapers advertise that the International Skin and Cancer Institute of Denver



claims to have a cure for cancer. The "cure" is exploited by one John D. Alkire. No doubt those afflicted with cancer, and those who believe themselves afflicted with cancer, will flock to Denver for the "cure." The actual victims of the disease will of course die, but there will be the usual number of recoveries from non-malignant sores that will be heralded as "cures" and thus will make the venture a profitable one. To the honor of Denver it may be said that some of its newspapers refused the advertisement. (Jour. A. M. A., Dec. 20, 1913, p. 2248).

The Ready Reckoner.—The attempt of a proprietary exploiter to pose as the physician's postgraduate instructor comes from the promoter of a "blood stimulating" preparation, — Hemaboloids Arseniated (with Strychnia). It is in the form of a ready reckoner for the diagnosis of pathologic sputum. The thing consists of a revolving arrow, surrounded by circles containing illustrations of bacteria such as no human eye ever saw through a microscope. The physician apparently is expected to point the arrow to what he sees, or thinks he sees, in the microscope and then, through a window in the tail of the arrow, observe the name of the organism and the disease which it produces. The device is an insult to intelligent physicians and belongs in the waste-basket (Jour. A. M. A., Dec. 27, 1913, p. 2306).

Pa-Pay-Ans (Bell).—An analysis, included with the report of the Council on Pharmacy and Chemistry rejecting the product, failed to find one of the constituents claimed to be present in the preparation,—the constituent after which the medicine appears to have been named, namely papain (Jour. A. M. A., Dec. 27, 1913, p. 2314).

The Action of Hexamethylenamin.—It has been shown by Hanzlik and Collins

that hexamethylenamin can act only in body fluids which are acid in reaction, namely the gastric juice and the urine. The only part of the body in which hexamethylenamin may be expected to exert an antiseptic action is in the urinary tract, and then only if the urine is acid. If the urine is not acid already sodium acid phosphate should be administered to render it so. The administration of sodium or potassium acetate or citrate, in sufficient quantity, will render an acid urine alkaline and inhibit the action of hexamethylenamin (Jour. A. M. A., Jan. 3, 1914, p. 43).

Odor-o-no.—Odor-o-no, The Odor-o-no Company, Cincinnati, Ohio, is sold as the "anti dress-shield toilet water." It is claimed to eliminate excessive perspiration and to be absolutely harmless. Confirming the analysis made by the Indiana state chemists some time ago, the A. M. A. Chemical Laboratory reports that now, as when examined before, Odor-o-no is a strong solution of aluminum chloride. When this solution is applied to the skin, it will be decomposed by the perspiration into free hydrochloric acid which will attack and irritate the skin, and aluminum hydroxide which tends to clog up the pores (Jour. A. M. A., Jan. 3, 1914, p. 54).

Hydrocyanate of Iron, Tilden.—While from the name one would judge Hydrocyanate of Iron, Tilden to be a cyanide of iron, analysis in the A. M. A. Chemical Laboratory has demonstrated the preparation to consist essentially of equal parts of talc and Prussian blue, with traces of organic matter having the properties of alkaloids. Prussian blue is a remedy that has been used for epilepsy and found wanting (Jour. A. M. A., Jan. 3, 1914, p. 58).

The Quality of Sodium Acid Phosphate.—As it appears probable that the use of

sodium acid phosphate will increase and since previous experience has emphasized the unreliability of little used drugs, the A. M. A. Chemical Laboratory deemed it important to examine the market supply. While the official sodium phosphate may be obtained of exceptional purity, the examination showed that the market supply of sodium acid phosphate was decidedly variable and much less pure, although not seriously impure. Based on the examination the laboratory proposed standards which were thought fair, both to those who make it and those who use it in their practice. The examination showed the product of the Mallinckrodt Chemical Works and of the Powers-Weightman-Rosengarten Company to comply with the proposed standards. Acting on the report of the laboratory, the Council on Pharmacy and Chemistry decided to describe sodium acid phosphate in New and Nonofficial Remedies and, having adopted the proposed standards of purity, accepted the two brands named for inclusion with N. N. R. (Jour. A. M. A., Jan. 10, 1914, p. 142).

**Hypo-Quinidol.**—While no definite statements appear to be contained in the advertising matter sent out by R. W. Gardner, certain statements suggest that Hypo-Quinidol might be some sort of a quinin hypophosphite preparation. But if this is true, its action would be the same as other salts of quinin and the extravagant claims made could not be substantiated. Hypd-Quinidol is a preparation the composition of which is secret and for which highly improbable claims are made. (Jour. A. M. A., Jan. 10, 1914, p. 148).

**The Richie Morphin Cure.**—The Richie Company was discussed in Collier's Great American Fraud series as one of the concerns which under the guise of mail-order "cures" for the morphin habit fosters the slavery of the drug habit by substituting

for the morphin addiction an addiction to their villainous mixtures of opiates. More recently shipments of the Richie "cure" were seized by the Federal authorities and found on analysis to contain from 7.21 grains to 15.95 grains of morphin sulphate to the fluidounce (Jour. A. M. A., Jan. 10, 1914, p. 144).

**Radium in Carcinoma.**—Sparmann reports on the after-history of fifty-three cases of carcinoma treated with radium. Of these eleven have died since the treatment, in six the humor has disappeared, in five the condition seems improved, in seven the condition is aggravated and in the others the treatment was not continued because the condition of the patients had become worse. While these results show that radium is a remedy of use in the treatment of cancer it is not a sovereign remedy as some enthusiastic reports would have us believe (Jour. A. M. A., Jan. 17, 1914, p. 212).

**Expurgo Anti-Diabetes.** — The claim made for Expurgo Anti-Diabetes (sold in Canada as Sanol Anti-Diabetes) that it is "The only positive cure for Diabetes" and others of this character should be sufficient to condemn it. Nevertheless medical journals advertise it and physicians have been found to give testimonials for it. Examination in the A. M. A. Chemical Laboratory showed that Expurgo Anti-Diabetes is essentially a watery solution of plant extractives with small quantities of sodium salicylate and salt. The exploiters claim that their stuff contains the fruit and bark of jambul, rosemary, star anise and fluid extract of calamus, cinchona, cola, condurango and gentian. One of the claimed ingredients, jambul, was in vogue as a remedy for diabetes some years ago. It was tried and found wanting and relegated to the therapeutic scrap heap (Jour. A. M. A., Jan. 24, 1914, p. 312).

Case's Rheumatic Specific.—This is a "patent medicine" sold under the inferential claim that it does not contain salicylate. A package bearing the statement that this medicine "Cures where all else fails rheumatism; muscular, sciatica, lumbago, gout, neuralgia, neuritis" contained one box of "Rheumatic and Gout Pills" and one of "Bilious and Liver Tablets." Examination in the A. M. A. Chemical Laboratory showed the first to contain sodium salicylate with some magnesium aoid and licorice root while the second was found to contain aloin or some preparation of aloes as the purgative constituent (Jour. A. M. A., Jan. 31, 1914, p. 394).

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## Book Reviews

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GENITO-URINARY DISEASES AND SY-  
 PHILIS—By Edgar G. Ballenger, M. D.,  
 Adjunct Clinical Professor of Genito-  
 Urinary Diseases, Atlanta Medical Col-  
 lege; Editor Journal-Record of Medi-  
 cine; Urologist to Westley Memorial  
 Hospital; Genito-Urinary Surgeon to  
 Davis-Fisher Sanatorium; Urologist to  
 Hospital for Nervous Diseases, etc., At-  
 lanta, Ga., assisted by Omar F. Elder,  
 M. D. The Wassermann Reaction by  
 Edgar Paullin, M. D. Second Edition  
 Revised. 527 pages with 109 illustra-  
 tions and 5 colored plates. Price \$5.00  
 net. E. W. Allen & Co., Atlanta, Ga.

The first thing that strikes the attention of the reviewer of Dr. Ballenger's book is the absence of unnecessary detail in the matter of the anatomy and physiology of the genito-urinary organs. A knowledge of these is pre-supposed and there-

fore the author plunges at once into the subjects under discussion. His first chapter is on gonorrhoea, which is dealt with in a thoroughly practical manner. Particular attention is called to the "sealing-in" treatment of incipient gonorrhoea with a 5% solution of argyrol. The author is careful to emphasize the fact that this treatment is of avail only in those cases where "the organisms" are limited "to the portion of the canal containing the argyrol, and secondly, the medicine must be retained for six hours daily." In these incipient cases, that is those presenting themselves for treatment within twenty-four to forty-eight hours after the appearance of the discharge the author states that he has succeeded in curing within five days about 90%.

This second edition is almost entirely re-written, the rapid advance of knowledge in genito-urinary diseases making this necessary. The Wassermann reaction; the luetin test; the cultivation of the spirocheta pallida; vaccine therapy; and all other late advances are dealt with in a clear and comprehensive manner without unnecessary verbiage to cloud the meaning and lengthen the book.

A particularly useful feature of this excellent work is the summary of each chapter given at the end of the chapter. This makes a most useful "quiz compend" for the practitioner as well as the student.

The only criticism we have to make is relative to the illustrations, which do not seem to be as clear as they should be and are probably made from old cuts.

Our readers will do well to investigate the work of Doctor Ballenger as outlined in this book for there are many practical points of great value scattered through its pages.



**PROGRESSIVE MEDICINE**—A Quarterly digest of Advances, Discoveries, and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., assisted by Leighton F. Appleman, M. D. Volume IV, December, 1913. Contents—Diseases of the Digestive Tract and Allied Organs, The Liver, Pancreas, and Peritoneum, by Edward H. Goodman, M. D.; Diseases of the Kidneys, by John Rose Bradford, M. D., F. R. C. P., F. R. S.; Genito-Urinary Diseases, by Charles W. Bonney, M. D.; Surgery of the Extremities, Shock, Anaesthesia, Infections, Fractures and Dislocations, and Tumors, by Joseph C. Bloodgood, M. D.; Practical Therapeutic Referendum, by H. R. M. Landis, M. D.; Index.

Dr. Goodman reviews all progressive literature and advances made in the Diseases of the Digestive tract and allied organs, since the corresponding issue of last year. In his review, there appears references of opinions and discussions of his in the last issue, indicating the lack of decisive advancement within a year. Nothing of a startling nature, or of a great practical value has been brought to light since the last corresponding issue. Under the Diseases of the Kidneys by Dr. Bradford, we have a good summary of the advances made in his department since the issue of a year ago, and the review indicates much laboratory investigation, with theoretical opinions in many cases, yet undecided. A large portion of the material is from foreign fields. Dr. Bonney gives a very miscellaneous review of the work and literature of the Genito-Urinary system, and it contains many interesting references and discussions. Much new material, and many new references are found in this department. A most interesting review and dis-

cussion, is given by Dr. Bloodgood, in the department of Surgery of the Extremities, etc., and is the leading review of this issue. It contains an abundance of information, of great practical value, and thorough review of foreign and domestic literature. Opposing views, wherever they exist are presented to the profession. It is as comprehensive as the scope of the work will permit, and is a very entertaining compilation and review. Under the department of Practical Therapeutic Referendum we get a concise treatise of additional facts and discussions that have evolved in our study and use of our most commonly used drugs and therapeutic agents, and brings this department up to the immediate present. As a whole the issue is up to the standard of this work, which remains in a field entirely its own. T. C. S.

### Saunders' Question Compend.

**ESSENTIALS OF BACTERIOLOGY.** By M. V. Ball, M. D., formerly Instructor in Bacteriology at the Philadelphia Polyclinic. Seventh Edition, Revised. Assisted by Paul G. Weston, M. D., Pathologist State Hospital for Insane at Warren, Pa. 12mo of 321 pages, with 118 illustrations, some in colors. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$1.00 net.

The fact that is the seventh revised edition of his excellency little compend is in itself sufficient proof of its value.

The authors have succeeded in putting an immense amount of information in a very small book.

Compend, as a rule, are too condensed to be of much aid, but realizing that this is a fact the authors have endeavored to present the essentials of bacteriology in a concise manner and make no pretense to having completely covered the subject. We

believe that this volume has had well deserved life and that its usefulness is not yet at an end. As a ready reference and a laboratory desk book it will be of great aid and assistance to many a practitioner who is forced to attempt to carry on his own bacteriological work.

The text shows evidence of careful revision and we miss many of the obsolete facts in bacteriology that have no further place in a work of this kind.

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THE SURGICAL CLINICS OF JOHN B. MURPHY, M.D., at Mercy Hospital, Chicago. Volume II, Number VI. (December). Octavo of 186 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Published Bimonthly. Price per year: Paper, \$8.00. Cloth, \$12.00.

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The leading article in the December number of Murphy's Clinics deals with Artificial Pneumo-Thorax in the treatment of pulmonary tuberculosis. This method of treatment was first introduced by Doctor Murphy in 1896 in his Oration on Surgery at the Denver meeting of the American Medical Association. The method did not, at that time, appeal to the profession generally in this country but was taken up by European physicians and found useful. Further work and reports have been made by Forlanini, who had used the method in a different way some ten years previous to Murphy's report. Doctor Murphy uses the same class of apparatus as devised at the time his method was first introduced.

This article is well worth the consideration of all physicians.

In addition to the leading article there are the usual number of excellent cases reported together with a detailed report of a student's clinic held at the opening of the session of 1913-1914 and illustrates

Doctor Murphy's method of student instruction.

The second year of publication of Murphy's Clinics finds the profession eagerly awaiting the next number. There has been no publication of recent years that has met with such universal favor and no physician can fail to profit by a careful reading of each number.

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THE TREATMENT OF RHEUMATIC INFECTIONS. Press of Parke, Davis & Company, 1913.

We have been favored by Parke, Davis & Company with a copy of their recently issued brochure dealing with the treatment of rheumatic infections with phylacogen.

The booklet contains a general description of phylacogens with a discussion of the theory as set forth by Doctor Schafer, the discoverer of phylacogens. Many case reports are given in full while the results of treatment in 6,324 cases are analyzed. An exhaustive bibliography is added.

To those interested in the subject Messrs. Parke, Davis & Company will be glad to mail a copy of the book on request.

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E. MERCK'S ANNUAL REPORT OF RECENT ADVANCES IN PHARMACEUTICAL CHEMISTRY AND THERAPEUTICS. Vol. XXVI, 1912.

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The first part of the report presents in an interesting way the present status of our knowledge regarding lecithin. After classifying lecithin and discussing its chemical composition, the occurrence and physiology of lecithin is considered. In considering the "Importance of Lecithin in Metabolism and Nutrition" it is pointed out, that a number of investigators have observed that lecithin has a very marked influence upon growth, especially upon the nitrogen and phosphorus metabolism. It

is asserted, that lecithin favors both nitrogen and phosphorus retention in the body. The use of lecithin in therapy is considered in connection with the treatment of various diseases. Information regarding "form of Administration and Dosage" is given and also a series of tests for determining the purity of lecithin. These tests should prove of value to the pharmaceutical chemist and the student of lecithin therapy. The extensive bibliography appended to this article will, no doubt, be appreciated by students and investigators along this line.

Some 400 pages are devoted to considering various drugs and preparations, and their uses in the treatment of disease. It is obviously impossible in a review of this kind to consider this part in detail. As a reference work it should prove valuable. In connection with salvarsan a list of important articles bearing on the use of salvarsan is given.

Valuable as the authors' and bibliographical indexes are, the supplement on "The Assay and Standardization of Digitalis Preparations" by Prof. Dr. R. Heinz, Director of the Pharmacological Institute of the University of Erlangen, is of special

interest to the pharmaceutical chemist as well as the investigator. The author considers the merits of, and objections to, the various methods in use and calls attention, in particular, to the importance of using warm blooded animals in the standardization of preparations of this sort. The advantage of using mice instead of frogs is discussed, and also the special advantages of rabbits and cats over mice for certain tests. A summary of the methods in use in the Pharmacological Institute is given. Physicians may obtain a copy by forwarding fifteen cents to pay postage.

F. W. CHRISTENSEN.

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Through the courtesy of Doctor Robert E. Swigart, General Superintendent of the Medical Department, United Fruit Company, we have received copies of the 1912 and 1913 ANNUAL REPORTS.

The reports are most interesting and are particularly well illustrated.

Doctor F. T. B. Fest, a former editor of this Journal and an ex-president of the New Mexico Medical Society, is now connected with this company in the capacity of surgeon and is located at Port Limon, Costa Rica.



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N. Mex. Med. Journal

# The New Mexico Medical Journal

Volume XI

MARCH, 1914

No. 6

E · D · I · T · O · R · I · A · L

*The New Mexico Medical Journal is not responsible for the opinions expressed by any of its contributors.*

**You want a larger and better journal  
YOU CAN HAVE IT BY WRIT-  
ING OUR ADVERTISERS: "I  
SAW YOUR AD. IN OUR STATE  
JOURNAL."  
FAVOR THOSE WHO FAVOR US**

For some years the New Mexico Medical Journal has advertised its willingness to accept advertisements of proprietary medicines provided the preparations "have been approved by the Council on Pharmacy, A. M. A., or give the formula in the advertisement." This rule has been observed in the past only half heartedly or not at all. The time has come when we must line up either for or against legitimate medicine and the only guide we have is the American Medical Association's Council on Chemistry and Pharmacy. A glance at our title page will show that now we accept advertisements of such preparations as have the approval of the above named official Council and to this rule we must strictly adhere.

We note, with regret it is true, that we have been compelled to omit certain old and faithful friends from our columns this month and in the months to come they will be missing, but until they comply with the requirements we shall have to omit them and in this connection we desire to state that the sooner all journals representative of medical organizations come to the same

conclusion the sooner, we believe, will the cause of ethical and standard medicine come into its own.

Just here the managing editor desires again to call the attention of the members of the New Medical Society particularly and of its readers generally to the fact that advertisers expect returns and we would greatly appreciate and they would greatly appreciate mention of the Journal in which the advertisement was seen when writing to them concerning any of their preparations.

To the members of the New Mexico Medical Society we say again that this Journal cannot exist without their active support and that the more local aid that is secured in the way of legitimate and ethical advertising that is secured the better the Journal that we will be able to furnish you.

We do not believe that our members realize the great opportunity the New Mexico Medical Journal has to become the leading medical publication of this part of our country. If you will study our location and the country from which we should draw support for our columns the fact as mentioned above would readily become visible. The managing editor cannot do it all alone; the Council and the managing editor cannot together accomplish it; it takes the united and individual effort of

each and every individual member whose Journal this is. We have paved the way and we are anxious for the assistance which you should be eager to give.

Here is the point:—

This is *your* Journal and the managing editor is but the servant of *your* Society, taking his instructions from the Council, the governing body of *your* organization. *Your* plain duty seems to be an active support and this active support is absolutely essential to the life of the organization and to the life of this Journal.

As we stated in the beginning, no more advertisements will be accepted that cannot stand the light of day in a full and fair examination as conducted by the Council of Chemistry and Pharmacy. We could, we believe, easily fill the advertising pages of the Journal with questionable advertisements which would profit to the extent of a few more dollars in the Journal's bank account but with a loss of self respect and the respect of the ethical journal no matter where situated.

*Your* society, through the Council elected by *your* House of Delegates, elected in turn by *you* have said that the pages of this Journal must be *CLEAN*, and this order will be strictly adhered to, but the New Mexico Medical Society, through its members, individually and collectively must do its part.

In conclusion, the managing editor is heartily in sympathy with the aims and ambitions of the American Medical Association and its component State organizations (of which our own State Society is no mean part) and personally will do all he possibly can to further the cause of ethical medicine in

New Mexico and it is in this spirit that this article has been written and this appeal is made.

THE MANAGING EDITOR.

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#### FINAL NOTICE.

The attention of the members is called to the fact that the new regulations require the State Secretary to drop all members in arrears on the 1st of April.

Pay your monthly dues now, if you have not already done so in order that your name may be reported by the secretary of your county society and if you do not belong to a county society send your dues to the State Secretary at once.

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#### CRIME AND MENTAL

##### DEFICIENCY

Criminal laws should be so made, and their administration so carried out, that there should be equal fairness shown to all concerned—the aggrieved and accused parties, and the community. In olden times insane people were considered to be bewitched by devils, and shunned or persecuted,—or, through religious enthusiasm, were credited with virtues they did not possess. Now, even in our enlightened day, there are parts of the civilized world where such unfortunates are sometimes chained to walls, or are arrested on the streets, taken before a police judge, charged and convicted of the crime of being insane, and sentenced to confinement in a jail.

Many insane patients, in the stage of excitement, following a protracted period of brooding over family or business troubles, commit acts of violence, some ending fatally, of which in a short time they remember nothing.



Such persons are certainly irresponsible. But this is not true of a great many others who commit offences, from the mildest to the vilest, and then hide behind the defense of insanity knowingly unjustly, to escape paying the penalty. In this they are encouraged by unscrupulous criminal lawyers who prostitute the honor of their profession by defending a man they know to be guilty of the vilest crimes, and take every possible advantage of the letter of the law and the compassion of twelve jurors. Slight mental deficiency is not enough to relieve a man of responsibility for his acts.

The pardoning power should be taken out of the domain of politics. In making this suggestion we do not refer to any pardon granted by the honored governor of New Mexico.

Many mentally deficient individuals, who naturally have no bad traits, become criminals through stress of circumstances and environment, and are fully responsible for what they do. Deficiency that is actually moderate, is relatively very great when such an individual has to compete with men of average intellect, and this is increased when there is also a wide difference in education, training and influence. The former usually has less control over his passions, and is more prone to marry and propagate a large family, than is a more intelligent and educated man who has not sufficient means. He usually makes every effort to honestly provide for the needs of his family, but the struggle is a hard one. In time of stress temptations are many, and frequently he falls; restraint is cast aside after the first lapse, and offenses are repeated, with the inevitable result. Bad moral surroundings, ig-

norance, liquor and other factors contribute to the fall of others. Persons of subnormal mentality very often have a lowered resistance to evil influences. A man who has been convicted of even a mild offense receives little sympathy, and is assisted on his downward path by many kicks.

In the above mentioned cases when the offense is mild, the individual not "bad" naturally, and there are extenuating circumstances, the penalty should be as light as possible and the man assisted. The right kind of treatment will often get him out of the mire, when harsh punishment will destroy his self-respect and desire to do better. A man sent to the penitentiary for a light offense, to serve a short time, is thrown in with hardened criminals, recidivists, who are beyond hope, and is frequently utterly ruined by them. This aspect of the subject has not received the attention it deserves from those in authority. The individual should always be taken into account.

The song in the opera *Mikado*, "Make the punishment fit the crime," is all right in many cases, but more discrimination should be used. The fact that a man is mentally deficient or a degenerate does not, by any means, indicate that he is irresponsible. This is an exceedingly difficult matter to decide in many cases.

A person who is so degenerate as to commit one vile crime after another, and has proved by his conduct that he has no control over his passions and no conscience, has no place in this world, and should be killed for his crimes, if he has committed one bad enough, as a deterrent to others, be placed in the penitentiary for life.

without the hope of a political pardon, or if manifestly insane, sent to an asylum. In many cases the punishment is altogether too light for the offense. I refer particularly to the white slavers and their cadets. It is a business with these people and there are very few, indeed, who are not mentally responsible. A long penitentiary sentence is too light for anyone remotely connected with forcing a good woman into such a life. It is very seldom possible to prove such a charge against a person until he has committed the crime a great many times, and he should then never be turned loose upon the public to repeat it.

Our ideas regarding the proper handling of offenders are now in the period of transition, and before long these individuals will be treated in a manner fairer to all concerned. We respectfully suggest a reading of Governor Hunt's address to the Arizona Medical Association at its last annual meeting.

E. C. P.

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### RADIUM.

At the present time radium is the focus of attention for medical eyes. Scarcely a medical meeting passes without some direct or indirect reference to it. A certain pathos can not be denied, when considering the hopes which radium has engendered. Medical men seem to resent the mere suggestion that they are idealists. They want to appear coldly scientific. Not for them is the romance and idealism. Theirs is the immutable law, the fixed fact, the absolute reality. Yet medical men are in truth the most inveterate dreamers and idealists in the world. Their very calling renders them in-

clined to measure things by an imaginary standard of perfection. A glance through the medical literature of the past half century is convincing proof, without enlarging on the hundreds of fancies and fashions that have governed the medical profession during that period of time. But there is something about this latest indulgence into the realms of fancy that really makes one excusable for dreaming about it. What wonderful properties it does possess!

First, radium is photographic, and we haven't even yet stopped marvelling at the fact that we can produce a picture by its means, even though the rays of radium must go through an opaque object.

Second, it is luminous.

Third, radium is electrical. It is said that under certain conditions it will cause all objects charged with electricity to lose their charge.

Fourth, it is chemical. It breaks up spontaneously if exposed.

Fifth, its physiological action of destroying cell life, is the action which has imbued physicians with the hope that it will act detrimentally on cancer cells.

The sixth has puzzled all scientists from the time of its discovery: one hundred calories of heat can be radiated into space every hour. At one time it was thought that radium has set at defiance the law of conservation of energy. Its radiations were believed not to diminish in extent for all time. But it is now settled that radium loses its power to give off heat or energy in decreasing intensity, so that in two thousand years one gram of it possesses only one-half the potential energy it did have.

The circumstances of its discovery also add a glamor to this remarkable substance. In 1896 Becquerel discovered upon examining some uranium that it possessed certain radio-active properties. Curie, whose tragic death several years ago everyone will recall, and his talented wife, extracted a substance from uranium possessing four times the radio-activity of uranium, which new substance they termed polonium. The Curies in 1898 found another radio-active substance which they called radium. This is the substance which has filled the medical world with a boundless hope. But already signs are not wanting that it is not the *ne plus ultra* of scientific endeavor. However, the future will determine unerringly the position which radium will occupy in science. Until then a healthy scepticism seems the proper attitude.—(Cincinnati Medical News.)

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#### RADIUM TREATMENT OF CANCER

In view of the popular furore which the radium treatment of cancer has excited in this country, it seems advisable to sound a note of warning. According to the best authorities, the radium treatment of cancer is as yet a matter of experiment, and what successful results have been obtained concern chiefly the treatment of external cancers, particularly those of the skin. Even though radium may eventually prove of much greater value than has been the case in the past, it must not be overlooked that the first principle in cancer treatment is still early recognition and early, thorough removal.

Thus far, there is practically no proof that radium has finally cured any one case of advanced and dissem-

inated cancer. There is every reason to believe that the popular interest aroused in the radium treatment of cancer will be utilized by a large number of dishonest and fake, money-getting establishments conducted by individuals with little or no radium, and who have no knowledge of its use. This has been the experience in Europe, where the popular enthusiasm about radium appeared earlier than it did here. The great danger, of course, in all these "cures" is the valuable time which may be wasted, thus frequently dissipating all chances of cure by surgical means.

We have arranged to devote the forthcoming number of the Monthly Bulletin to an unbiased account of the letin to an unbiased account of the progress of cancer research, including an authoritative statement of the place of radium as a therapeutic agent in this disease.—(Bulletin, N. Y. City Health Department.)

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#### IS YOUR COUNTY SOCIETY IN LINE?

The Committee on Red Cross Medical Work of the American Medical Association desires to revise its file of the Committees on Red Cross Medical Work of the County Medical Societies. Mr. Secretary of the County Medical Society, kindly report your society's committee to Dr. George M. Kober, care of the American Red Cross, 716 Union Trust Bldg., Washington, D. C. You do not have such a Committee? Well, what prevents your society from constituting one. Don't wait or some day you may regret it.

#### THE PLAN OF ORGANIZATION.

Experience has proven that potentiality is increased by organization far



in excess of the sum of the powers of the individuals who join forces. The result of such combination is not only more and better work but each one enjoys more comfort and, paradoxical as it sounds, more freedom of thought and action. Men are ready to forego unessential individual rights that they may have easily appreciated increased personal advantages. The results of organization of individuals are furthered by union of the several societies formed. Consequently, in civil life, hamlets, towns and cities grow. In turn, these group themselves into counties and states and these unite to form nations.—(A. M. A. Bulletin, January, 1914.)

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## Original Articles

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### DISEASE OF THE EXTERNAL CANAL, SIMULATING MIDDLE EAR DISEASE.

By E. R. CARPENTER, M. D.,  
El Paso, Texas.

(Read before the 32nd Annual Session of the New Mexico Medical Society, Albuquerque, N. M., October 2nd-4th, 1913.)

Disease of the external canal is frequently confused with middle ear trouble, and it is not unusual to find both regions simultaneously involved. In this short paper I wish to call attention to a few of these conditions met with in every-day practice.

The external canal presents a number of factors from which trouble may arise; although disease of the external canal is not of so serious a nature as middle ear trouble, yet the discomfort is at times very pronounced, and diffi-

cult to relieve. This canal is lined with epithelium, having many hair follicles and secreting glands extending into the wall. It is from this source that we meet with most trouble.

The shape of the canal may vary until instead of the natural tendency for the secretion, cast-off epithelium, dirt, etc., to be expelled outward, it accumulates and is retained at times until removed artificially or it may remain so long that permanent injury takes place, not only to the external lining, but from pressure necrosis the drum and middle ear become involved. This retained material, usually called impacted cerumen, may also result from some disturbance in the direction of the hairs in the canal, and upon inspection is ordinarily dark brown, but where considerable epithelium is mixed with the cerumen, or at times the mass may be composed for the most part, of cast-off epithelium, it is difficult to say whether it is from the external canal or accumulated exudate from the middle ear.

The history of previous middle ear discharge may help to determine this point; all such cases should be thoroughly investigated, as when the middle ear is involved we have at times to deal with a cholesteatoma, not only in the middle ear but also attic and mastoid complications arise of the most serious nature.

Slightly disturbed deafness with no history of previous ear trouble, and the presence of foreign material, especially in both ears, justifies one in presuming it to be an external trouble.

Sudden deafness, in one ear especially, with no history of previous discharge or pain, and the presence of foreign material in both ears, indicates

the material has suddenly changed position, or perhaps it has suddenly enlarged by accidentally getting water into the ear while bathing. The hearing should always be tested in each ear separately before and after removing the mass, and the hearing should in uncomplicated external cases be almost normal immediately after treatment, whereas, if the middle ear is involved, but little if any improvement takes place. The patient should in every case be informed that the hearing may not be improved. Where the plug is soft, brown and greasy in appearance it may be removed by warm syringing, but if hard, dry and crumbles easily, water causes expansion and it should be softened by instilling a few drops of one per cent. caustic potash in glycerine; then in an hour or so, syringe out. Where the material is hard and grayish, indicating epithelium, it is better to soften with a few drops of peroxid, or some alkaline agent before removing with the syringe.

It is not a safe procedure unless in experienced hands, to attempt removing these masses with a curet, as I have seen perforations of the drum, middle ear trouble and its complications result from injudicious use of the curet.

Eczema of the canal, with considerable secretion, sometimes occurs wherein it is difficult to determine whether the secretion comes from the middle ear or not, and is at times very stubborn to treatment. The hearing is as a rule far better than would be found in a middle ear trouble with the same amount of secretion. Recurrences are met with frequently, and the actual cause is often impossible to determine.

In some of these stubborn cases I have had good success with Beck's bismuth paste. This condition must not be confused with some of the parasitic troubles presenting a similar appearance, but which can be readily diagnosed by the microscope, and usually by the characteristic patches resembling ordinary mold as seen on vegetable matter. This condition is usually easily eradicated by syringing with an antiseptic and repeated installations of two per cent. salicylic acid in alcohol.

Another condition, ordinarily known as furunculosis, wherein one or more circumscribed abscesses form in the canal wall with a tendency to recurrence, may at times be confusing, as not infrequently the swelling, pain, secretion and general discomfort resemble very much a mastoiditis, especially, in those cases where there is a history of chronic otitis media. The pain and tenderness in these cases is in the canal, and the tenderness elicited by slight movements and pressure of the auricle, with but little or no tenderness over the mastoid itself, is characteristic. Some writers give importance to the appearance of the swelling behind the auricle, but I have seen furunculosis present an identical appearance as met with in mastoiditis. In furunculosis the canal is usually more or less obliterated, and with a probe one or two very sensitive points can be found, sometimes pus exuding from the wall. Of course a sagging posterior wall, in mastoiditis may show a similar appearance, but the extreme sensitive points are lacking, and in such a case the marked mastoid tenderness will usually be present. It is not altogether uncommon that the mastoid operation is advised and made in cases of furun-

culosis. One of the most noted otologists in New York City several years ago became very angry at a patient I took to him, because the patient would not submit to a mastoid operation, which proved later to be a severe furunculosis with a chronic middle ear discharge.

It is evident that in these every day affairs, the diagnosis is usually not difficult, yet in doubtful cases we should not overlook any steps to insure certainty, as the treatment of one does not apply to the other.

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### EVERY DAY EYE INJURIES.

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By F. E. TULL, M. D.,  
Albuquerque, N. M.

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(Read before the 32nd Annual Session of the New Mexico Medical Society, Albuquerque, N. M., October 2nd-4th, 1913.)

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Every day eye injuries or injuries that are most frequently seen by the general practitioner as well as the men who are doing eye work, are not infrequently followed by serious complications which may endanger the sight of the eye.

The minor injuries to the eye should receive the same careful attention by the physician as the unusual or more formidable appearing injuries and the patient should be warned of the danger of complications that may come up.

In localities where large forces of men are at work in factories, shops, etc., where minor eye injuries most frequently occur, the men have a tendency to become careless and not realizing the danger they may incur by delay in having the proper attention given, or rather than lose the time go-

ing to a physician, will call a fellow workman to render aid that the most skilled physician might find difficult to render. This practice should be discouraged.

This practice is especially true in cases of foreign bodies in the cornea and complications in the form of corneal ulcers are of frequent occurrence as the cornea is scarafied over a large area leaving a fertile field for infection.

The forms of eye injury most commonly seen are foreign bodies in the cornea or conjunctiva, cuts or penetration into the interior of the globe by foreign bodies or pointed instruments, contusions inflicted by blunt objects and lastly burns and injuries caused by chemical agents. Foreign bodies in the cornea and conjunctiva are of more frequent occurrence than any other injury and are usually accompanied by more pain and nervous disturbance than many of the more serious injuries.

In every case of suspected foreign body I instil a few drops of weak solution of cocaine in the eye. In my opinion that does no harm either temporary or remote and aids very materially in making a careful inspection of the eye. It relieves the pain and lessens the sensitiveness to light; it also contracts the epithelial layer thereby making the foreign body more prominent. After waiting a few minutes for absorption to take place I begin my search for the foreign body; if it is large there is little difficulty in locating it; if small a condensing lense and magnifier is necessary and not infrequently for very small particles the ophthalmoscope can be used to advantage. Never let an examination pass without carefully inspecting the car-



nucle, tear duct opening, also evert the upper lid and examine there carefully regardless of what may have been found in the cornea.

In removing the foreign body the spud or bayonet pointed knife that is used should be thoroughly sterilized, also the conjunctival sac should be flushed with an antiseptic solution.

If the foreign body be superficially located it can be frequently removed by drawing a piece of cotton that is wrapped on the end of an applicator, across the cornea; if there is a projecting point the fiber of the cotton will catch on it and drag it off; in such cases there is little or no reaction.

If it be deeply imbedded the patient is directed to keep both eyes open and fixed in a certain direction, to bring the eye in a favorable position. The spud is then placed alongside the foreign body and pushed steadily between it and the cornea until it is displaced. Sudden dabbing and miscellaneous scraping while the patient is rolling the eye is to be avoided as it endangers the cornea. If due to a hot cinder, emery or iron and the tissue is burned, the carbonized tissue should be removed if possible, also if it has been in for a few days all the soft tissue should be removed and an application of Ung. Hydrarg. Ox. Flav. applied. It is my custom to give Argyrol 10% to be instilled in the eye at frequent intervals and hot fomentations in case there is much pain. If proper precautions are observed there is little danger of corneal ulcer, but should it occur it is necessary to use a mydriatic also antiseptic treatment and rest. If the foreign body has been driven with sufficient force to perforate the globe at some point a more dangerous and seri-

ous task confronts you. If it be steel the magnet should be used; if it be of non-magnetic character the eye should be operated on. The foreign body may have been of such size and shape as to cut through the coats of the eye and rebound. In this case there will be an escape of the aqueous or vitreous depending on the depth of the cut.

If the cut is through the cornea with the escape of the aqueous there will follow a prolapse of the iris at the point of injury with the remaining portion of the iris against the cornea and the anterior chamber obliterated. In such cases the prolapsed iris should be excised so as to secure closing of the corneal wound. When excising this portion of the iris it can be done under cocaine; it should be pulled well outward and clipped off close to the cornea with a pair of curved scissors. If the sclera be cut through the whole thickness there will be diminished tension of the eye ball and danger of infection of the vitreous. All prolapsing structure should be excised, the wound carefully cleansed and if the wound is large should be closed with conjunctival sutures. Extensive wounds of the sclera may still allow recovery of the eye even with useful vision. However when there is general disorganization of the eye or beginning irido-cyclitis and it becomes certain a sightless globe remains, prompt enucleation shortens the period of disability and removes danger of sympathetic ophthalmitis.

The treatment of cases of the above character consists in complete rest and mydriasis. In corneal abrasion or superficial injuries warm fomentations are very grateful, while in penetrating injuries cold fomentations should be used to keep down reaction, especially

early in the treatment.

In contusions of the orbit in which the skin is not broken but the lids discolored and swollen and a red condition of the conjunctiva, special care must be taken to note, first the condition of the pupil, if it can be seen, whether it is dilated or contracted; second, if it cannot be seen the anterior chamber will be filled with blood as the result of hemorrhage from the iris. This will disappear in from twenty-four to forty-eight hours and is not a dangerous symptom, but the trauma may have been of sufficient force to cause dislocation of the lens or traumatic cataract. Third, it is always well to test the vision for if the cornea and pupil are clear and plainly visible and the vision is impaired there must be a deeper injury to the eye ball and the ophthalmoscope will only reveal the exact location and intensity of the injury. In such deeper injuries the patient should be put to bed, eye kept quiet together with the use of atropine and the ice bag. The quiet will aid in checking hemorrhage from leaky vessels and the ice will prevent decomposition of the blood and give the eye a chance to recover. If, however, the blood decomposes it will manifest itself in three ways: first, by loss of light perception; second, the tension will be decreased, and third, the pupil, after a few days, will be seen a greenish mass deep in the eye ball which indicates pus. The eye having broken down must be enucleated to avoid sympathetic ophthalmitis.

Burns of the cornea and conjunctiva may occur from hot steam, ashes or drops of molten metal. Similar injuries may be caused by chemical caustics and especially lime. In all such cases the

affected tissue will be found rather pale and opaque and cedema of adjoining tissue rapidly develops. The greatest danger from burns lies in the involvement of the cornea and their tendency to cause symblepharon.

If a foreign particle remains at the seat of injury it should be removed as soon as possible; if due to a chemical caustic it should be thoroughly neutralized. The great danger from chemical caustics is that they penetrate the tissues more deeply and cause death of the cells.

Of the chemical caustics acids are less destructive as they harden and contract the tissues thus limiting their own action while alkalis on the other hand soften and infiltrate more deeply. A burn from an acid, if seen early, should be neutralized by irrigation with a solution of borax or a one per cent solution of sodium carbonate. If from an alkali a few drops of sweet oil or a one per cent. solution of vinegar helps neutralize it. Should the burn be due to lime the eye should be thoroughly irrigated with cold water to remove the foreign substance and sweet oil dropped in the eye to check the action.

Burns from hot metal are more benign, supposedly due to the liquid which bathes the front of the eye; it either cools the metal rapidly, if it be in small mass, or during vaporization takes a spheroidal shape if the mass be large and holds it away from the eye.

The after treatment of the various forms of burns is the same. For the relief of pain a solution of Holocain and adrenalin may be instilled every few hours; cleanse the eye with boric acid solution and before the dressing is applied a few drops of liquid petro-

leum should be instilled to protect the exposed nerve endings.

To avoid adhesions forming, the opposing surfaces should be separated several times a day. It is claimed by some physicians that a two per cent. ointment of picric acid applied two or three times a day has a marked influence on the pain and symblepharon is less likely to occur.

### UNUSUAL EYE INJURIES.

By E. H. IRVIN, M. D.,  
El Paso, Texas.

(Read before the 32nd Annual Session of the New Mexico Medical Society, Albuquerque, N. M., October 2nd-4th, 1913.)

In sections of the United States where large manufacturing institutions are located many unusual accidents occur in which the eyes are injured. Literature is full of such matter and one could compile a volume by collecting the written accounts of these cases. This is not, however, a resume of the literature, and consists of the relation of some incidents occurring in my own practice.

On Aug. 24, 1912, J. A. D., a boy 11 years of age, was brought to my office. Two days before this his eye had been badly damaged by an instrument which was to me a peculiar one. The boy had found an old golf ball and had been amusing himself by tossing it against the wall from a distance of two or three feet.

There was an explosion, a puff of smoky gas and the right eye was promptly closed, with badly swollen lids. The patient was treated with cold boric acid solution applications and the eye washed out as well as the

family could do it.

Nothing further was done in the way of medical aid until the child was brought to me. The lids were separated with elevators and no eye ball was to be seen. A dense diptheric looking membrane showed like a curtain between the lids and practically no discharge was present.

Under general anesthesia, I dissected out the membrane which was attached only in two places to the eye ball, but was adherent to the palpebral conjunctival. This proceeding showed the eye ball, steamy and with the pupil dimly discernible and apparently fixed.

The treatment instituted was Dionin, Iodoform Ointment and Atropine. By the evening of the day I saw him first, the pupil was well dilated.

There was no pain and no infection. To be brief, the pseudo membrane was dissected from that boy's eye seven times in the next two weeks.

Faithful application to treatment finally saved a slightly shrunken ball with light preception, and the ability to outline large objects, principally from the temporal side.

Gas was formed on the interior of the ball, probably from some decomposition of the rubber which forms the center of the ball.

Sulphur being an ingredient in the rubber it might have been sulphurous acid gas.

It has been shown that the paste composing the center of a golf ball in many instances consists of a mixture of barium sulphate, soap and free alkali (sodium hydroxid, 2.4%).

At all events the injury to the eye was chemical, as neither lids nor eye ball had been his by the flying fragments.



A similar case has been reported by L. W. Grigler, *Journal A. M. A.*, April 26, 1913. I believe my case antedates his, but this is the first report which I have made.

On Aug. 29, 1912, a girl, Myrtle B., was brought to me for treatment. Her right eye showed a ragged tear of nearly the whole corneal margin. The iris, torn in ribbons, was protruding from the opening.

This accident had happened two hours before I saw her and the lids and surrounding tissues, even to the line of the eye brow, were much swollen. Sight was gone, light preception doubtful.

The prolapse of the iris was at once excised and the ragged wound cleansed, some fragments of stick and grass being removed. After thorough cleansing, Dionin was instilled and Iodoform dusted into the anterior chamber.

Medical treatment was followed for the next twenty-four hours, nevertheless the temperature steadily increased until at the beginning of the second day it reached 104. Pus was exuding from the eye and bacteriological examination showed only staphylococci present.

The eye ball apparently protruded, tension was increased and the tumor of the orbital contents was as large as a walnut.

Efforts were unavailing to locate the source of the pus and I enucleated the eye at the end of thirty-six hours.

About a drachm of pus was excuvated from the tissues beneath the arch of the orbit, which had apparently not been penetrated by the instrument which damaged the eye. Recovery was uneventful and prothesis very satisfactory.

The little girl had been seated on the lawn in front of her home, playing with her three year old sister. The smaller child had a stick, which looked like a portion of a child's toy umbrella handle, which was sharp on one end and she was digging in the grass with it. The older girl was looking down and the little one suddenly said, "boo," which caused her to look up, when the baby at that instant poked the stick at her right eye with the results foretold.

The manner in which this accident occurred is common enough, but the rapidity with which panophthalmitis came on and the fulminating character of the case was out of the ordinary in my experience.

In Sept., 1908, Mrs. R., a young married woman of pleasing appearance received a revolver shot wound inflicted by her husband.

For some reason not fully explained R. came home from work one morning and drawing a gun attempted to shoot his wife, who fled through several rooms in the effort to escape. He finally caught her and fired wildly. The bullet, a 38 caliber, entered the temple about a half inch posterior to the external angular process and passed almost horizontally through the skull, severing both optic nerves, opening right eye ball and lodged just under the skin on the opposite side.

The walls of the frontal and ethmoidal sinuses were shattered, and no great hemorrhage followed.

The bullet was removed and about 8 hours afterward I was called upon to take care of the unfortunate woman, which I did for several months.

Both eye balls had to be enucleated and I was never able to use artificial eyes, as contraction was too great.

There was scarcely a trace of temperature and no infection, no paralysis, and recovery such as it was, uneventful.

Keen says this is not an uncommon result of attempt at suicide, but as this is the only case of which I have personal knowledge, I report it here.

After shooting his wife the man shot himself successfully and died in a few minutes.

W. H. W., a fireman aged 40, appeared three months ago with a lime burn of the right eye. Treatment gave good results with no lid adhesions, or corneal opacities, eye appearing normal. Eyesight had been 20-20ths, O. D. and O. S. up to that time and I had fitted him to a pair of reading glasses a month or two before.

Four weeks after the lime burn, which was slight, he came to my office complaining that he could see very little out of the eye that had been injured.

The visual acuity was greater in the dark than in the bright light; examination with the ophthalmoscope showed cortical cataract.

As the possibility of clearing up incipient cortical cataract by medical means is now well recognized and as it has also been seen that they will clear, unaided, in certain instances, I commenced treatment at once.

This cataract was chemic in origin probably due to "disorganization of the transparent albumens that are contained in the lens fibers" (Beard).

Nevertheless, vision which was 3-16ths is now 8-16ths and the patient is much encouraged.

Many cases of traumatic cataract resulting from penetration of the lens by sharp instruments will either remain stationary or clear partly under medical treatment, and I wish to report here

several instances of this kind, which have occurred under my own observation:

1. Two cases of penetration of the lens by the tine of a fork; one clearing, the other becoming completely cataractous.

2. Two cases of cataract from concussion; one clearing partly, the other not at all.

A Mexican woman eating watermelon was startled by one of the family, who came up back of her and raised her arm quickly, the fork which she was using was driven into her cornea. One tine penetrated and entered the lens; no infection followed and the lens became fully cataractous. Operation was refused.

A boy, also Mexican, was at the table eating and someone jogged his elbow, his fork pierced the lower part of the cornea and scratched the lens, which became hazy at the point of cataract. This opacity cleared almost perfectly under medical treatment.

Non-penetrating injuries produced by concussion or striking of the eye ball are often severe and far reaching in this effect upon the integrity of the optical apparatus.

In the following cases contusion was sufficient to produce traumatic cataract and in one instance hemorrhage into the anterior chamber was also present:

A woman opening a bottle of citrate of magnesia, unguardedly pointed the cork in the direction of her eye. The stopper flew out and struck the closed eye lid with sufficient force to produce in a couple of weeks a haziness of the lens. This cleared a little, but still is of sufficient density to destroy the usefulness of the eye.

On the day following, her son, a boy of twelve, playing base ball received a blow in the eye from a bat and acquired a traumatic cataract the counterpart of his mother's. (Some families haven't any luck anyhow.) The boy's lens became densely infiltrated and should be operated.

Railroad engineers have many times in the past sustained severe eye injuries from the fragments thrown with terrific force by the explosion of a water glass. Lately the glass has been enclosed in a screen, which in most instances obviates this. There are still some old engines not equipped with this safety device and these accidents do occur occasionally.

Ray G. was sent to me from Mexico having had a piece of glass removed from his eye after one of these water glass explosions. The lower third of the cornea had been torn and the iris split, but there was no prolapse. The wound had cleared and a yellow cottonlike hypopion filled the anterior chamber so high as to occlude the pupil. Pain was intense. After a few hours of effort to control the progress of the infection, I did a broad section and stroked the hypopion from the anterior chamber. The pus was stringy and tenacious, coming away in one piece.

The anterior chamber was filled with iodoform and recovery was rapid. Result, vision 14-16ths.

A few days later an electrician working at the same place in Mexico was measuring spaces on the switch board of the plant for the purpose of placing danger signs at regular intervals. The man was a first class mechanic and thoroughly conversant with the dangers he ran. The chief electrician had ordered all men to use wooden rules,

or at least ones without brass bindings.

This man neglected the precaution and while reaching up, the rule fell from his hands, clattered through a net work of wires and landed in exactly the proper position to make a short circuit.

He was fixed in position by the tremendous flare of light and one side of his body burned, the left eye being almost incinerated.

This stump of eye I enucleated. The general surgeon for the company spent many tedious months in healing the large burned areas on his head and shoulders.

Accidents of this kind are clearly avoidable and the man himself alone was to blame.

Some years ago we had an epidemic of mesquite thorn injuries. Men riding through the brush or children playing received penetrating injuries of the eye from mesquite thorns. One case in particular, a boy ten years of age, was following an older boy through the brush. The boy in advance held back the branches for the smaller boy to pass. At one time he released a branch too soon and it flew back hitting the little fellow in the eye. A thorn penetrated the center of the cornea and a traumatic cataract resulted.

I did discission successfully (repeating the operation several times). The lens absorbed with no trouble at all. Vision was normal with correction.

I expected much gratitude, but I did not receive it. It seems to me that it is rare for a patient with one good eye to feel any gratitude when vision is restored in the other eye which has been cataractous.

Nevertheless, I personally believe that monocular cataract should be op-



erated whether it be of traumatic or senile origin. The wider range of vision is desirable and a resultant sight is obtained, which may not be secured at a later date, or in the case of senility, when the cataract is hypermature.

Many instances have come under my observation of injuries to the eye by fragments of copper shell from explosions of small rifles while hunting, penetration of the eye with a blade of a pocket knife in the hands of too youthful a whittler. Sticks have flown up while chopping kindling, penetrating the cornea and doing their modicum of damage.

Only a month ago a mother brought her little girl, 7 years old, who had been playing near the sewing machine. The child had a large pair of scissors, which had narrow blades, a kind of double stiletto as it were, and was trying to poke the points through a spool. Thinking she had failed she reversed the spool and looked into the other end. The protruding points penetrated almost at the horizontal meridian on the nasal side of the pupil and made an ugly wound. This necessitated an iridectomy, but as the lens was not touched good sight remains.

If it were possible to eliminate infections from injuries to the eye, treatment would be a matter of the utmost simplicity.

The very fact that the eye does become infected in fully half of the instances of injury to the globe, renders early diagnosis and prompt action on the part of the physician imperative.

That there are present some constant and early signs of infection by which we may be guided, I do not believe. By that I mean that an uninfected injury, a surgical injury produced by

operation, and an infected injury, all have practically the same amount of pain, photophobia and lachrymation in the first twenty-four hours.

There are exceptions, as in the second case which I have reported, but these isolated instances are of no service to us for general application.

There is no general rule and the great factor remains in the judgment of the individual.

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### PELLAGRA.

By J. W. COLBERT, M. D.,  
Albuquerque, N. M.

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(Read before the Bernalillo County Medical Society.)

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Pellagra has been known to the medical world for more than a century. Early in the nineteenth century it became very prevalent in Italy, and was regarded as a national menace; over one hundred thousand cases were known to exist in the infected area of Italy, and it was accompanied by a high mortality. At the present time the disease is most prevalent in Italy, Southern Roumania, Austrian Tyrol, Southeastern Hungary, Lower Egypt, —and of late years in the southeastern part of our own country.

It was long thought to be nonexistent in the United States, but about six years ago it was recognized as being not only existent, but quite prevalent in various localities of this country, and there is no question but what the disease is rapidly increasing in the United States today, and to an alarming extent. While the malady is still largely confined to the southern states, it has shown itself to be a respecter of neither locality nor person, and may be

met with anywhere in this country. In 1907 authentic cases were reported to exist in thirty-seven states. Several cases have been reported from New Mexico within the past three years—and at least one case has been found in Albuquerque. It is therefore important that the physician of this locality should know something of a few of the clinical facts so as to be able to identify the malady,—and this is my excuse for presenting this subject to our County Society tonight, and I trust that with the aid of a few slides I may be able to give you a working picture of the disease.

*Etiology.*—In spite of the fact that the disease has been known for over a hundred years, the question of etiology is in a chaotic condition as yet. We are indebted to the Italian workers, and especially the late lamented Lombroso, for most of the theories up to the present time, and the weight of evidence at present available would certainly seem to support these theories. Briefly stated the existing Italian theories as to etiology are those championed by the two groups,—the Zeists and the Antizeists; one claiming a definite relation between Indian corn and pellagra, the other denying this connection and believing that pellagra is simply a symptom complex occurring in various alcoholics, insane persons, and chronic diseases. The Zeists themselves are divided into several groups. One group believes that pellagra is due to an intoxication—a chemical intoxication if such a term may be used, an intoxication due to chemical bodies arising from the decomposition of maize itself; the second group believes that the maize undergoes some change in the body and causes this intoxica-

tion, the body poisons itself as it were, the maize being simply an intermediary agent. The third, and I believe the largest class of the three, believe that pellagra is due to some specific toxic organism. Whether this organism is of the nature of a protozoan organism, or whether this animal organism is a true bacteria, and whether pellagra should be considered among the infectious diseases, or whether it is due to some sort of mold or growth, is wholly a matter of theory. Personally I cannot but believe that Indian corn bears some relation to pellagra, and I believe that the general opinion of the country is in favor of some relation between Indian corn and pellagra. However, there is a great deal of argument pro and con. Cases have been reported which positively deny having eaten corn bread. The fact that in Mexico where corn bread is a very common article of diet and pellagra is almost unknown has been explained by the fact that the Mexicans keep their corn meal in ovens before eating, thereby killing any organisms present. In Italy ovens have been established where the disease is more prevalent and they claim a decrease in the number of cases since this method. I believe that we are justified in considering pellagra as a pathologic entity, a specific intoxication, and our present attempts at therapy should be directed towards combating an intoxication whose exact genesis is still undetermined.

*Symptomatology.*—It is no easy matter to give a clear description of a disease so exceedingly variable in its manifestations. Of course it is of great importance and incalculable advantage to the patient for us to learn to recognize the disease in its earliest and in-

ipient stages. But it is a well known fact that the disease is often not diagnosed by men who are recognized competent diagnosticians, and an early diagnosis where there is merely the first indications of the disease would necessarily be a difficult one, especially with those who are inexperienced with the disease.

Among the manifestations of the condition in the incipient state there can be no doubt that the so-called neurasthenic symptoms, with possibly history of variable diarrhoea, predominate or appear alone. In all such cases where examination fails to disclose any other cause for the diarrhoea, and there is a history of cornmeal diet, and nothing else to account for the headache, malaise, anorexia, or nausea that may be present, I believe the physician would be quite justified in making at least a tentative diagnosis of pellagra and instituting immediate treatment by restricted or selected diet and arsenical medication,—if the patient be seen in a known pellagrous district. These prodromal symptoms are those frequently of mere malaise, with perhaps vertigo and headache, muscular weakness and tremors, insomnia and an anxious melancholic type of psychosis, followed in unrelieved cases by restlessness, confusion and even hallucination and active delirium. Later on are developed the marked tetanic states, clonic reflexes, with dementia or death. These prodromal symptoms are not very often seen, however, for the physician is seldom called until the disease is well developed. Pronounced symptoms generally manifest themselves in the early spring, sometimes in the fall; the symptoms are then apt to subside after a time, only to recur again the next

year, and each annual recurrence leaves a more marked impression upon the nervous and mental condition, and not infrequently leads to insanity or to a fatal cachexia. Following upon the prodromal period there appears in a short time the striking erythema, quite characteristic, selecting nearly always the uncovered parts of the body, and being symmetrical in its distribution. It makes its first appearance usually on the extensor surfaces, backs of hands and forearms, back of neck, upper chest, face, and dorsal surfaces of feet. At a later period the flexor surfaces are apt to be affected.

Cases have been reported where the erythema is generalized. Pellagra is often spoken of as wet or dry. One form of the erythema remains dry and scaly; the other develops bullæ which fuse into large plaques filled with serum. The lesion is first seen on the backs of the hands. The skin at first has a red appearance, accompanied by a sensation of burning and generally some puffiness. This is apt to be mistaken for simply a sunburn. After a few days the puffiness disappears, the epidermis dries and falls in small scales. There is often an extensive loss of the epithelial layer of the skin. In other cases the epidermis, after the initial redness, takes on a dark color—brownish or blackish, and then, later on, dries and scales. Exfoliation sometimes occurs in large flakes. After numerous manifestations of the skin lesions the parts involved undergo chronic thickening with pigmentation — until the skin becomes quite thick, indurated and rough. Hence the name of the disease, from the Italian, *pelle*, skin, and *agra*, rough.

The skin lesions appear, as a rule,



only once annually, generally, as stated before, in the springtime. The following year it re-occurs and leads to the atrophic changes described. In the diagnosis of pellagra the erythema is of first importance, and bears the same value as do the skin lesions of scarlet fever, measles, and small-pox, in the respective diagnosis of these diseases.

*Prognosis.*—The cases in the United States have been characterized by intense manifestations, and the mortality has been much higher than in Europe. The death rate has been placed as between twenty-five and thirty-three and a third per cent in the American cases.

*Treatment.*—At the present time there is no definite, specific treatment of pellagra. The formulation of therapeutic measures in a condition whose etiology is so much a question of hypothesis, must be largely based on symptomatology. The therapy should have in view the temporary alleviation of the more obvious symptoms, with some effort directed to the deeper and underlying lesions. Without going into detail, I wish simply to state that these measures include:—

(1) Elimination through the intestinal tract.

(2) Supportive treatment, by careful attention to diet—*i. e.*, good food, carefully selected, easily assimilable, and in abundance.

(3) Active medication with arsenic and its compounds. Fowler's Sol. may be used in ascending and descending doses. The many so-called arsenical preparations have all been used, and some encouraging results have been reported from the use of salvarsan.

Change of climate, especially to colder regions, is supposed to be beneficial.

Attempts at passive immunization

by direct transfusion of blood have been tried with apparently favorable results.

In the absence of any known specific treatment, the symptoms must be met as they arise, bearing in mind that the disease is chronic in nature, and therefore the patient must be kept under careful medical supervision for some time after an apparent recovery.

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## Abstracts

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### Urinalysis. •

C. J. Robinson and J. H. Mueller, Louisville, Ky. (Journal A. M. A., February 14) remark on the faulty technic given in the description of the use of the Doremus-Hinds ureometer. The directions usually given say that after the urine has been introduced into the hypobromite solution the instrument should be allowed to stand for a short time, or from ten to twenty minutes, before reading. They give a table of readings with six ureometers taken at intervals from twenty minutes to twenty-four hours, using pure urea solution, which make it apparent that the twenty-minute reading is far below the true figure. They attribute the variable results observed to the slowness of diffusion of the urine if the instrument is allowed to stand, and they also give another table showing the comparative results of urea determination with the Doremus-Hinds and the Folin and Pettibone method. It is definitely shown, they say, by their results that to get quick reaction the ureometer should be gently but rapidly shaken. The results are higher than the correct value of urea, but when multiplied by the factor 0.917 the results represent approximately the true value, it being within 5 per cent of absolutely cor-

rect in 90 per cent. of their analyses of normal urine. Tests with pathologic urines are now being made.

### Hemorrhagic Hypernephritis.

J. O. Walkup, Medical Corps, U. S. Army, Fort Bayard, N. Mex. (Journal A. M. A., February 14), gives an account of a case of the uncommon affection of hemorrhagic hypernephritis, the only one found in sixty-five necropsies at the Army Tuberculosis Hospital. The subject, he says, is not so well treated in medical literature as other diseases equally uncommon, the majority of the text-books omitting it altogether and only a few giving data for its clinical recognition. The etiology is unknown. Fatty degeneration is marked. He has found this condition rare in the adrenal in his experience, but when present the fibrous condition of the pancreas is usually increased and the islands of Langerhans apparently enlarged. The symptoms are not well defined, but the disease usually appears suddenly with signs of gastrointestinal irritation, fever, pain in hypochondrium and later tympanites, and usually death within forty-eight hours. The patient in this case was a sergeant with a negative family history, who had suffered from dysentery and malaria. He died in a convulsion after an unusual exertion from which he fainted. The post-mortem showed enlarged adrenals, one of them inclosed in a blood-clot, but the glands showed no marked tissue change. The cardinal symptoms in the case seemed to be profuse water diarrhea, pain localizing at costal arch and radiating, especially on pressure, to the shoulders and loins, and symptoms of collapse with high blood pressure. Walkup says the diarrhea may have been due to tuberculosis, but that is not his opinion apparently. In only a minority of cases of tuberculous bowel

disease, according to his observation, is there diarrhea, and when present there seems to be little relation between it and the extent of the intestinal tuberculosis. It may be, he suggests, that adrenal changes are a factor in tuberculous enteritis, colitis or intercolitis.

### The Phenomena of Infection.

Victor C. Vaughan, Ann Arbor, Mich. (Journal A. M. A., February 21), contradicts Doerr's statement that bacteria have a relatively simple molecular structure and asserts that all infecting agents are living proteins capable of growth and multiplication. He says that their pathogenicity depends on their ability to grow in the body, their rapid multiplication and wide distribution leading to acute systemic disease, and their slow or localized growth leading to chronic or localized disease. A new ferment may be formed or an old one modified by which the body is protected against certain diseases, such as small-pox.

Vaughan is convinced that infective bacteria contain an intracellular poison common to all proteins, and that the poison which kills in all infectious diseases is the same; but the specificity of the bacteria lies in the non-poisonous groups, and the symptoms differ according to the organ or tissue in which the poison is liberated through the splitting up of the virus, which cleavage is due to a specific ferment.

By means of animal experimentation Vaughan became convinced that the disastrousness of the results of an infective disease is determined by the rapidity of the growth of the virus and the amount of accumulation of foreign protein at the time of the effective sensitization. He says that, as Gamaleia concluded, twenty-five years ago, the febrile process is the result of the reaction of the organism against the bacteria and not of bacterial action.

Vaughan has produced experimentally in animals, acute, remittent, intermittent and continued fevers and their accompaniments. Protein fever, he says, which includes practically all clinical fevers, is a result of parenteral protein digestion, in which the animal cells furnish the ferment. We are immune to most bacteria and protozoa because they are destroyed, as soon as they enter the body, by the non-specific proteolytic ferments probably secreted by the leukocytes, and normally in the blood and tissues. A protein not thus disposed of is deposited in some tissue or organ for which it has a predilection, such as the pneumococcus in the lungs. The time of development varies with the sensitizing protein. Solution of the problems of the conditions affecting a fever awaits further research.

He gives the evidence for and against this theory, drawing from the facts presented the conclusion that, although the exact chemical structure of the poison produced by the disruption of the protein molecule by chemical agents is not known, and though it has not been proved that the poison formed in vitro is identical with that formed in vivo, yet they are closely related, as is inferred from their physiologic action. He warns that, since every unbroken protein contains a highly poisonous group, serum and vaccine therapy should be carefully used. He protests against classifying toxins and anaphylactogens together as "antigens." The fact that tuberculin, according to most investigators either does not sensitize or does so imperfectly raises a question as to its usefulness in therapeutics, though it is an excellent diagnostic agent and through the tolerance established by it to the tuberculo-poison should be used unless the more completely isolated poison is preferable.

### Amebic Dysentery.

A case of amebic dysentery of thirteen years' standing cured by hypodermic injections of emetin hydrochlorid is reported by G. W. McCaskey, Fort Wayne, Ind. (Journal A. M. A., February 14). The patient, a woman of 70 years, previously in good health, contracted acute dysentery in 1900 while in Tennessee, which passed into a chronic diarrhea, with at times bloody discharges. During and following the acute illness she lost 30 pounds in weight, which was later partially regained. With special care as to diet and extensive treatment, she kept in a reasonable degree of health. About three or four years ago, however, she began again to lose strength and weight and finally consulted Dr. McCaskey, Aug. 25, 1913. Besides a leukocytosis of 17,600 and the discovery of many amebas in the semi-fluid feces, nothing very noteworthy was found on examination. Emetin in hydrochlorid ( $\frac{3}{4}$  gr. and 1 gr.) was injected on three successive days, causing at first only moderate nausea, but after the second and third injections severe nausea and abdominal distress. The amebas disappeared in the feces, and the first formed stool in thirteen years was passed, and the patient was discharged September 8. There were two relapses which were treated and the patient was finally discharged on October 27 as cured. This is the second case encountered by Dr. McCaskey; the other one was fatal, in spite of the treatment known at the time. He considers the present one of interest as showing the specific action of the emetin in hydrochlorid announced by Rogers last year (Brit. Med. Jour., June 22, 1912). The abdominal distress and nausea after the second dose he considers probably due to the liberation of autogenous toxins from the killed amebas.



### **Lactic Acid in Diphtheria.**

S. T. Nicholson, Jr., and J. F. Hogan, Baltimore (*Journal A. M. A.*, February 14), give the results in nine cases of the use of lactic-acid-bacilli spray for ridding the nose of diphtheria germs. The results by this method were better than from any other used. Cultures from live lactic bacilli (Bulgarian type) were obtained from the Mulford Laboratories and a small atomizer was used to distribute the culture in four cases. In five the ordinary sour milk was used as a gargle also. The nine cases are briefly reported. Their experience was encouraging enough for further study in this direction, and with its use and that of the intravenous method of administering antitoxin, of which a future report is promised, the hospital stay of the patients has been reduced.

### **Emetin in Amebic Dysentery.**

The history of the emetin treatment of amebic dysentery is given by E. B. Vedder, Captain Med. Corps, U. S. Army, Washington, D. C. (*Journal A. M. A.* February 14), who also reports his own experience. The disease, he says, is more prevalent in this country than has been supposed and he has therefore brought together and discussed this latest and most successful method of its treatment. As to the effectiveness of the emetin treatment he gives a table of 110 cases in which this method was used by twenty-two observers and in which ninety-nine patients were clinically cured, while eleven died. This gives a positive and satisfactory answer to the question. The standard of cure in these cases consisted in the return to normal formed stools and a total absence of any dysenteric symptoms. The fatal cases were those well advanced and the rapidity of improvement in the others was noteworthy. In sixteen cases of hepatitis due to

the ameba he finds sixteen cases reported by nine observers with 100 per cent of cures. Up to date these cases have not shown any tendency to recurrence so often observed after surgical treatment. The question whether or not the cures are permanent is discussed. Many of the patients have continued to harbor amebas after the reported cure. The fact that patients may have a double infection with *Entamoeba histolytica* and *E. coli* is to be remembered, the latter is, however, a harmless parasite. It seems to be a fact, however, that a patient may pass the *E. histolytica* for at least a couple of years and apparently be protected against reinfection. The final proof of permanent cure will have to depend on a longer period of observation than has yet elapsed in the cases reported, but a permanent cure may be considered possible. In most of the cases the drug has been administered hypodermically and in other cases in what would seem dangerously large doses without any permanent ill effects. Vedder thinks, if the advice of certain authors is taken as to the size of doses, fatalities may occur which are liable to discredit the treatment. He especially mentions the large doses advised by Baermann and Heinemann as inadvisable. Theoretically the intravenous method offers certain advantages, but Vedder considers the hypodermic medication safer. Successful cases have been reported where it has been given by the mouth, but he has not had striking success in this way and therefore recommends the hypodermic administration. The hydrochlorid of emetin is more soluble and evidence seems to favor its preference. The customary procedure has been to give from  $\frac{1}{4}$  to 1 grain daily for about ten days, but Vedder prefers to give  $\frac{1}{4}$  grain three times a day for about ten days, which can be administered without any serious in-

convenience of any kind. Any recurrence of symptoms should be the signal for renewing the treatment. Liver abscess is treated in the same way, but it cannot be expected that pus will be absorbed, and an exploratory puncture should be made. If pus is found, it should be evacuated and drainage used for a few days. Since patients after cure often become carriers of encysted amebas it is desirable to prevent this and Vedder thinks that high irrigation of silver nitrate and quinin may be effective. His conclusions are summed up as follows: "1. Emetin is a true specific in amebic dysentery and hepatitis, and the results obtained by its use compare very favorably with the results obtained with salvarsan in syphilis. 2. The hypodermic use of the hydrochlorid salt is the preferred method of treatment. 3. A large percentage of the cases so treated continue to harbor *Entamoeba histolytica* (often in the encysted and most dangerous form) in the feces for some time. 4. While in view of this fact it is impossible to state at present that patients treated by emetin will remain permanently cured, yet the prospects of obtaining permanent cures by this method are encouraging. 5. The presence of a considerable number of these chronic ameba carriers constitutes a sanitary menace to the community. 6. It is possible that the amebas may be removed from these carriers by a course of irrigations of quinin or silver nitrate. 7. Experiments have failed to show that emetin possesses any marked therapeutic virtue in bacillary dysentery, syphilis or rabies."

#### New and Nonofficial Remedies.

Since publication of New and Nonofficial Remedies, 1914, the following articles have been accepted for inclusion with "N. N. R.":

Farbwerke Hoechst Co.; AMPHOTROPIN.

Fairechild Bros. & Foster: TRYPSIN.

Hynson, Westcott & Co.: Phenolsulphon-ephthalein, H. W. & Co.; Phenolsulphon-ephthalein Ampoules, H. W. & Co.

H. K. Mulford Co.: Anti-Anthrax Serum, Mulford; Antistreptococcus Serum Scarlatina, Mulford; Disinfectant Krelos, Mulford; Salicylos; Staphylo-Serobacterin; Strepto-Serobacterin; Typho-Serobacterin.

Essence of Pepsin, Fairechild: While in my letter dated December 31st, 1913 I advised that the Council had agreed to the request of Fairechild Bros. & Foster that the product "Essence of Pepsin, Fairechild." be described in N. N. R. under the new name "Pepsencia," the council later reconsidered this action. The product is included in N. N. R., 1914, on page 110, under its old title "Essence of Pepsin, Fairechild."

Since publication of New and Nonofficial Remedies, 1914, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies":

Serobacterins.—Serobacterins are emulsions of bacteria which have been treated by the application of the corresponding specific immune serum. Bacteria as treated are supposed to contain specific amoceptors so that immediate union with the complement of the patient's serum is said to occur. Hence, their action is supposed to be more rapid than that of ordinary vaccines. They are also said to be free from the negative phase and the general and local reactions produced by ordinary vaccines.

Staphylo-Serobacterin, Mulford—This is

a sensitized Staphylococcic Vaccine. H. K. Mulford Co., Philadelphia, Pa.

Strepto-Serobacterin, Mulford.—This is a sensitized Streptococcic Vaccine. H. K. Mulford Co., Philadelphia, Pa.

Typho-Serobacterin, Mulford.—This is a sensitized Typhoid Vaccine. H. K. Mulford Co., Philadelphia, Pa. (Jour. A. M. A., Feb. 7, 1914, p. 457).

Disinfectant Krelor, Mulford.—A solution of cresols or higher phenol homologues and rosin soap. The phenol coefficient, ranging from 5 to 7, is stated on the label. It is an antiseptic, germicide and deodorant. Mulford Antiseptic Krelor is an almost black liquid, having a creosol-like odor forming a milk-like emulsion with water. The H. K. Mulford Co., Philadelphia, Pa. (Jour. A. M. A., Feb. 14, 1914, p. 537).

Anti-Anthrax Serum, Mulford.—It is prepared by immunizing horses against virulent anthrax bacilli. H. K. Mulford Co., Philadelphia, Pa.

Antistreptococcic Serum Scarlatinal, Polyvalent, Mulford.—The serum of horses treated with streptococci taken from scarlet fever patients. The H. K. Mulford Co., Philadelphia, Pa. (Jour. A. M. A., Feb. 14, 1914, p. 537).

Corpus Luteum, Capsules.—Each capsule contains desiccated corpus luteum, Armour 0.3 Gm. Armour & Co., Chicago.

Corpus Luteum Tablets.—Each tablet contains desiccated corpus luteum, Armour 0.13 Gm. Armour & Co., Chicago (Jour. A. M. A., Feb. 21, 1914, p. 615).

Granular Effervescent Salicylos.—Each 100 Gm. contain strontium salicylate 6.54 Gm., ammonium salicylate 6.54 Gm. with an effervescent base of sodium bicarbonate, citric acid and tartaric acid. H. K. Mulford Co., Philadelphia. (Jour. A. M. A., Feb. 21, 1914, p. 615).

Amphotropin.—Hexamethylenamin cam-

phorate, a compound of hexamethylenamin and camphoric acid. It combines the action of camphoric acid and hexamethylenamin, but is claimed to be free from the subjective gastric disturbances produced by camphoric acid and to be effective in smaller doses. It may be given dissolved in water or as Amphotropin Tablets containing 0.5 Gm. Farbwerke Hoechst Co., New York (Jour. A. M. A., Feb. 28, 1914, p. 697).

### Propaganda for Reform.

Sal Hepatica.—Sal Hepatica, marketed by the Bristol-Myers Co., New York, has been refused recognition by the Council on Pharmacy and Chemistry because its composition is secret, because it is advertised indirectly to the public for the treatment of diseases, because exaggerated and unwarranted claims are made for its therapeutic qualities and because its name fails to indicate its chief constituents, but does suggest its use in liver disorders. The Council authorized publication of its report because the exploitation of Sal Hepatica is an important illustration of the way in which physicians are being made parties to the introduction to the public of a patent medicine the indiscriminate use of which must often have resulted in harm, direct or indirect (Jour. A. M. A., Feb. 7, 1914, p. 472).

Orrin Robertson and His Seven Sacred Oils.—Robertson is a quack at present located at Arkansas City, Kansas, who claims to remove gall-stones by means of "Seven Sacred Oils which grow in seven different climes." For the oil he claims "One oil acts specifically upon the entire head and throat. One oil acts directly upon the esophagus. One oil acts directly upon the stomach." And so it goes, each oil acting a little lower down, until we reach the seventh oil which "acts directly"



on the rectum. Robertson also exploits a cure for cancer. (Jour. A. M. A., Feb. 7, 1914, p. 473).

**Mu-col.**—"Mu-col for Cleansing Mucous Membranes" is a nostrum put out by the Mu-col Company, (Inc.), Buffalo, N. Y. The following claims are made: "Mu-col obtains most gratifying results in catarrhal inflammations of the mucous membranes. Leucorrhea, Tonsilitis, Sore Throat, Cystitis, Internal Hemorrhoids, Nasal Catarrh and Pus Cases respond at once to irrigation with Mu-col solution. Strong solutions of Mu-col have proven of sterling value in treating Hives, Prickly Heat, Ivy Poison, Sunburn, Eczema, Typhoid and Scarlet Fever." Examination in the A. M. A. Chemical Laboratory showed Mu-col to be a mixture of sodium chlorid and borax, equal parts, with the addition of a small amount of aromatic substances (Jour. A. M. A., Feb. 7, 1914, p. 474).

**Piorkowski Laboratories Not Licensed.**—The Public Health Service announces that statements which seem to emanate from the so-called Piorkowski Laboratories in various parts of the country to the effect that these laboratories have been licensed by the U. S. Health Service are incorrect. Instead, after inspection, a license has been refused the Piorkowski Laboratories of Berlin, Germany (Jour. A. M. A., Feb. 14, 1914, p. 553).

**Pyo-atoxin.**—A box of Pyo-atoxin was submitted to the A. M. A. Chemical Laboratory for examination. The box contained thirty black capsules having the appearance of some of the popular gonorrhea nostrums. While the synonym "Pheno-Methylene-Formate" suggested that Pyo-atoxin was a definite chemical substance, the examination contained in the capsules was a mixture of hexamethylenamin and methylene blue—two well known drugs the value and limitations of which are known

to the medical profession. Pyo-atoxin is sold by H. O. Hurley, Louisville, Ky. and is said to be "An Antitoxin Agent Indicated in Gonorrhea, Cystitis, Pyelitis and Bacteriuric Conditions" (Jour. A. M. A., Feb. 14, 1914, p. 552).

**Hexalith.**—Hexalith put out by the Smith-Dorsey Co., Lincoln, Neb., is said to be a combination of hexamethylenamin and lithium citrate. As lithium citrate has a tendency to render the urine alkaline and since hexamethylenamin acts only in an acid medium, the constituents of this preparation are physiologically incompatible (Jour. A. M. A., Feb. 14, 1914, p. 555).

When is a Patent Medicine?—While some physicians and especially some medical journals have trouble in classifying certain proprietary medicines drug departments in department stores find the problem a simple one. In a recent Chicago newspaper advertisements for Fellow's Syrup of Hypophosphites, Glycothymoline and Sal Hepatica look perfectly at home with Peruna, Circus Liniment and Beecham's Pills (Jour. A. M. A., Feb. 21, 1914, p. 631).

**Lucile Kimball Obesity Cure.**—Lucile Kimball of Chicago, comes to the obese with the message "I can make your fat vanish by the gallon." All that is needed, she says, is to take her treatment—no dieting, exercise or drugs are needed. The treatment consists of pink pills, which are reported to contain red pepper, menthol and bitters, probably gentian or quassia; brown tablets which the chemists declared to be an old fashioned cathartic pill, and a powder, reported to consist of soap, Epsom salt and washing soda (Jour. A. M. A., Feb. 21, 1914, p. 631).

**Louisenbad Reduction Salt.**—This is a white powder sold by Karl Landshut, Chicago, and is to be used dissolved in a bath. The A. M. A. Chemical Laboratory report-

ed the powder to be composed of sodium sulphate, sodium chlorid and potassium chlorid. It is hardly necessary to say that taking a bath in a tubful of water in which a tablespoonful of the mixture has been dissolved would have no other effect than that obtained from bathing in the same amount of water without the mixture. (Jour. A. M. A., Feb. 21, 1914, p. 632.)

Effect of Tartrates.—Many of the organic acids, such as citric and acetic, are burned up in the body, giving rise to carbon dioxid and water; thus sodium citrate, for instance, acts just like sodium carbonate in the organism. On the other hand tartaric acid and its salts are for the most part not destroyed in the body and leave it in their original form and animal experiments have shown that large doses of tartrates may give rise to symptoms of nephritis. However, while the claim is made for a certain baking powder that the tartaric acid of cream of tartar in it is "wholesome" is evidently unwarranted. W. Post has shown that in the doses in which tartrates in the form of purgative mixtures, etc., is ordinarily given, are probably without harmful effects (Jour. A. M. A., Feb. 21, 1914, p. 616).

Administration of Lecithin.—It has been shown many times that phosphorus in the form of organic compounds as it occurs in milk or in eggs probably changes in the body to phosphate and is subsequently elaborated into lecithin. In view of this there would seem to be no physiologic or biologic reason for preferring isolated lecithin as a medicament to milk or eggs. If it is believed that lecithin is indicated, the administration of one or two raw, or even cooked, yolks of eggs will supply all the lecithin that could be metabolized and presents it in a better manner than an artificial preparation (Jour. A. M. A., Feb. 21, 1914, p. 615).

Every Woman's Flesh-Reducer.—This obesity treatment is sold by the Every Woman Company, Chicago, Ill. and is a white powder smelling strongly of camphor and is of the bath-powder type. Examination in the A. M. A. Chemical Laboratory indicated the powder to be a mixture of alum, Epsom salt with an effervescing base of citric acid and sodium bicarbonate or possibly sodium carbonate with a small amount of camphor (Jour. A. M. A., Feb. 28, 1914, p. 714).

"Get Slim."—Jean Downs, New York, offers to reduce the obese with "a purely vegetable, pleasant, healthy drink." A box of "Get Slim" was examined in the A. M. A. Chemical Laboratory. It contained 15 large envelopes, the same number of smaller envelopes and a package of powder. The large envelopes appeared to contain only sugar tinted pink. The contents of the smaller envelopes appeared to be tartaric acid, also tinted pink. The white powder was concluded to be sodium bicarbonate only. The sugar and tartaric acid powders are to be made into lemonade with the addition of lemon. The bicarbonate of soda is dissolved and the solution taken before meals (Jour. A. M. A., Feb. 28, 1914, p. 715).

Pam-ala, Another Worthless Quinin Substitute.—According to advertisements Pamala, sold by the Pam-ala Company, New York, is "A new and efficient Remedy for MALARIA." Its general characters, particularly its cuminal-like smell, and also the advertising claims are very similar to Sinkina, a preparation which was shown to be worthless. Most of the testimonials sent out are rather old and are stated to come from physicians in Italy, Cuba, Porto Rico, Guatemala, etc. Two recent testimonials from physicians in the United States were investigated by the Council on Pharmacy and Chemistry and in each

case it was found that the opinions had been based on insufficient trials and that the physicians on further use of Pam-ala had become convinced of its insufficiency. While the evidence indicated that the essential constituent of Pam-ala is oil of eumin, proven worthless in the investigation of Sikina, a chemical analysis was not made by the Council because it was thought that the secrecy with which the identity of Pam-ala was surrounded and the extravagant and highly improbable claims were sufficient to condemn it (Jour. A. M. A., Feb. 28, 1914, p. 715).

## Book Reviews

### History of Medicine.

HISTORY OF MEDICINE, WITH MEDICAL CHRONOLOGY, BIBLIOGRAPHIC DATA, AND TEST QUESTIONS, by Fielding H. Garrison, A. B., M. D., Principal Assistant Librarian, Surgeon General's Office, Washington, D. C., Editor of the "Index Medicus," Octavo of 763 pages, many portraits. W. B. Saunders Company, Philadelphia and London, 1913. Cloth, \$6.00, net; Half Morocco, \$7.50, net.

Doctor Garrison has written this book for the purpose of furnishing the "medical student or busy practitioner with a definite outline of the history of medicine, and, at the same time, to place in his hands a large number of important facts which may be of use in his professional work or desirable to know as a part of his medical culture."

In the opening chapter the author discusses the identity of all forms of ancient and primitive medicine and shows that primitive medicine "is inseparable from

primitive modes of religious belief." Tracing medicine through all the weird, fantastic turns given to it through the early ages, shamanism for instance, the history of medicine is shown to be also the "history of human fallacy and error."

Egyptian medicine is next considered. The Ebers Papyrus, the most important of the medical papyri, is taken as a guide to that period.

Sumerian or Accadian medicine is next dealt with. The Babylonian physicians regarded disease as the "work of demons which swarmed the earth, air and water," and against which long litanies or incantations were recited.

Greek Medicine is considered in three sections: Before Hippocrates; the Classic Period (460-146 B. C.); the Graeco-Roman Period (146 B. C.-476 A. D.). "The surgeon's art was held in high esteem among the ancient Greeks and the chieftains of high rank did not disdain to follow it." Empedocles lived during the first of these periods and it was he who was said to have "checked an epidemic by draining swampy lands and to have improved the climatic condition of his native town by blocking a cleft in the mountain side." This was likewise the age of the doctrine of "humoral pathology."

Hippocrates is the figure around which centers the scientific advancement of European medicine. Hippocrates lived during the Classic Period of Greek medicine and has left his impress for all time. "After his time there was a great gap in the continuity of Greek medicine."

The Byzantine Period (476-732 A. D.) is given a short chapter after which the Mohammedan and Jewish Periods (732-1096 A. D.) are discussed.

Feudalism and ecclesiasticism reigned supreme during the Medieval Period (1096-1438). Medieval medicine, in the sense of



medicine under the Christian church, began in the School of Salerno, the origin of which is obscure. This period furnishes much that a reviewer of this excellent work is tempted to detail, but to do justice to it would take up more space than is given to the average review, for the Medieval Period was followed by the revival of learning, and the reformation, making another most interesting period, The Period of the Renaissance (1438-1600). These last two periods are given much space and tell an interesting story in the History of Medicine.

The seventeenth century is styled The Age of Individual Scientific Endeavor, the greatest name in the medicine of that century being that of William Harvey. The eighteenth century is termed the Age of Theories and Systems, a full discussion of which is followed by a chapter on The Beginnings of Organized Advancement of Science (the nineteenth century) and a chapter on The Beginnings of Organized Preventive Medicine (the twentieth century).

The appendices deal with Medical Chronology; Bibliographic Notes for Collateral Reading and Test Questions.

The author of the work is the principal assistant librarian in the Surgeon General's office and therefore has had at his command a wealth of material which he has used to the very best advantage, having produced, not only a medical history, but a classic. The charm in reading this book has been in the simplicity of the language and the ease with which the author leads the reader through period after period. We believe that no physician, no matter where he practices, is competent to practice medicine without some slight knowledge of the history of his art and science and this work will supply a much needed volume to those of the profession

who have neither the time nor the means to search out these interesting facts for themselves.

We recommend this book to all practitioners as a most excellent library volume to which they can turn for rest after a hard days' work.

McB.

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PRINCIPLES OF SURGERY. By W. A. Bryan, A. M., M. D., Professor of Surgery and Clinical Surgery at Vanderbilt University, Nashville, Tennessee. Octavo of 677 pages with 224 original illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$4.00 net.

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"While the title of the book is 'Principles of Surgery,' its real significance would possibly be more correctly expressed by the single word 'Principles;' for while the texts presents the facts upon which surgical diagnosis and treatment rest, it at the same time covers elemental teachings which as surely concern every other branch of medical practice, especially inasmuch as the majority of surgical cases must come at first into the hands of the practitioner of medicine."

Thus, in his preface to this most excellent work, does the author furnish a truthful review. The book appears to the reviewer to be one of the most satisfactory works of its kind that he has had the opportunity of reading. The facts upon which the general practitioner must depend for his diagnosis are presented in a clear, concise and readable style and without unnecessary detail or superfluous ornamentation.

Doctor Bryan's experience as a teacher has evidently been blended with his ability as a surgeon and this book comes as a result of both. It is a most pleasing evi-

dence of a book written for use and not for the personal glorification of the author. We heartily advise those of our readers whose library needs such a book to purchase this one for it is full of meat.

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**DIAGNOSTIC METHODS.** A Guide for History Taking, Making of Routine Physical Examinations and the Usual Laboratory Tests Necessary for Students in Clinical Pathology, Hospital Internes, and Practicing Physicians. By Herbert Thomas Brooks, A. B., M. D., Professor of Pathology, University of Tennessee, College of Medicine, Memphis, Tennessee. Second edition, Revised and Rewritten. St. Louis, Mo., 1914; C. V. Mosby Company, \$1.00.

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This booklet outlines most carefully the taking of case histories and gives the essentials in diagnosis. It is strictly up-to-date in every respect and will be found a useful desk reference book for those having only a limited amount of time to give to laboratory work.

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**DORLAND'S AMERICAN ILLUSTRATED MEDICAL DICTIONARY.** New (7th) Edition Revised and Enlarged. A new and complete dictionary of terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Veterinary Science, Nursing, Biology, and kindred branches; with new and elaborate tables. Seventh Revised Edition. Edited by W. A. Newman Dorland, M. D. Large octavo of 1107 pages, with 331 illustrations, 119 in colors. Containing over 5,000 more terms than the previous edition. Philadelphia and London: W. B. Saunders Company, 1913. Flexible Leather, \$4.50 net; thumb indexed, \$5.00 net.

A dictionary, to be of service, must be kept up to the hour. So rapid are the changes in medicine and so varied the new terms and words, that a dictionary soon becomes obsolete unless the publishers are wide awake and constantly on the alert. Dorland's dictionary needs no introduction to the medical profession. It has established its rightful place and this new, seventh edition will only make new friends for a most excellent reference work. 5,000 more terms are to be found in this edition than in the previous one. We have yet to refer to it for information and be disappointed.

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W. B. Saunders Company, Publishers of Philadelphia and London, have just issued an entirely new eighty-eight page Illustrated Catalogue of their publications. As great care has evidently been taken in its production as in the manufacture of their books. It is an extremely handsome catalogue. It is a descriptive catalogue in the truest sense, telling you just what you will find in the books and showing you by specimen cuts, the type of illustrations used. It is really an index to modern medical literature, describing some 250 books, including 30 new books and new editions.

A postal sent to W. B. Saunders Company, Philadelphia, will bring you a copy, —and you should have one.

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**PRACTICAL SANITATION, A HANDBOOK FOR HEALTH OFFICERS AND PRACTITIONERS OF MEDICINE** by Fletcher Gardner, M. D., Captain Medical Corps, Indiana National Guard, Health Commissioner of Monroe County, Indiana, and James Persons Simonds, B. A., M. D., Professor of Preventive

Medicine and Bacteriology, Medical Department, University of Texas. Illustrated. St. Louis, Mo., The C. V. Mosby Company. \$4.00.

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This book is intended as a guide for health officers and practitioners of medicine. As far as we can learn it is the only book on this subject and should be welcomed by those members of the profession who are called upon to serve as health officers as well as by the general practitioner whose daily labor makes knowledge of these subjects of prime importance. The subject matter is divided into three parts, the first dealing with epidemiology, the second with general sanitation and the third with laboratory methods.

In reviewing this work we note that great care has been given its treatment of the various subjects. Quarantine is considered most carefully and the different quarantinable diseases grouped appropriately. We were particularly pleased to note that much attention has been given the question of the examination of schools, while the duties of the health officer and the management of campaigns for the extermination of rats, flies, mosquitoes, bedbugs and other disease carrying vermin are carefully outlined.

This book should be of great practical value in preventing disease and in securing a higher standard of health for the American citizen, not only in cities but in rural communities as well.



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